```
=> file biosis caba caplus embase japio lifesci medline scisearch
=> e jacobs antonius/au
E1            3     JACOBS ANTON/AU
E2           16     JACOBS ANTON A C/AU
E3            0 --> JACOBS ANTONIUS/AU
E4            1     JACOBS ANTONIUS A C/AU
E5            4     JACOBS ANTONIUS ARNOLDUS C/AU
E6           14     JACOBS ANTONIUS ARNOLDUS CHRISTIAAN/AU
E7            1     JACOBS ARHUR M/AU
E8            1     JACOBS ARLENE/AU
E9            2     JACOBS ARLENE F/AU
E10           2     JACOBS ARMAND/AU
E11           3     JACOBS ARMAND MUELLER/AU
E12           4     JACOBS ARMAND MULLER/AU

=> s e1-ee6 and (over attenuat?)
L1            0 E1-EE6 AND (OVER ATTENUAT?)

=> s e1-e6 and (over attenuat?)
L2            1 ("JACOBS ANTON"/AU OR "JACOBS ANTON A C"/AU OR "JACOBS ANTONIUS"
                /AU OR "JACOBS ANTONIUS A C"/AU OR "JACOBS ANTONIUS ARNOLDUS
                C"/AU OR "JACOBS ANTONIUS ARNOLDUS CHRISTIAAN"/AU) AND (OVER
                ATTENUAT?)

=> d

L2   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2009 ACS on STN
AN   2005:607098  CAPLUS <<LOGINID::20091118>>
TI   Combination vaccine for poultry
IN     ***Jacobs,  Antonius Arnoldus Christiaan***  ; Van,  Empel Paul
     Cornelius Maria; Nuijten,  Petrus Johannes Maria
PA   Akzo Nobel N.V., Neth.; Van Empel, Paul Cornelius Maria
SO   PCT Int. Appl.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
     ---------------     ----   --------    --------------------    --------
PI   WO 2005063284        A1    20050714    WO 2004-EP53623         20041221
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
             RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
             MR, NE, SN, TD, TG
     CA 2550923            A1    20050714    CA 2004-2550923         20041221
     EP 1699483            A1    20060913    EP 2004-804958          20041221
     EP 1699483            B1    20090311
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             IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS
     BR 2004017880         A     20070427    BR 2004-17880           20041221
     JP 2007518717         T     20070712    JP 2006-546172          20041221
     AT 424844             T     20090315    AT 2004-804958          20041221
     ES 2322272            T3    20090618    ES 2004-804958          20041221
     US 20090053262        A1    20090226    US 2006-582315          20060608
PRAI EP 2003-104954        A     20031223
     WO 2004-EP53623       W     20041221
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
RE.CNT  4     THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT


=> s e1-e6 and rhinotrach?
L3            2 ("JACOBS ANTON"/AU OR "JACOBS ANTON A C"/AU OR "JACOBS ANTONIUS"
                /AU OR "JACOBS ANTONIUS A C"/AU OR "JACOBS ANTONIUS ARNOLDUS
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              C"/AU OR "JACOBS ANTONIUS ARNOLDUS CHRISTIAAN"/AU) AND RHINOTRAC
              H?

=> d 1-
YOU HAVE REQUESTED DATA FROM 2 ANSWERS - CONTINUE? Y/(N):y

L3   ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2009 ACS on STN
AN   2006:1225852  CAPLUS <<LOGINID::20091118>>
DN   146:26334
TI   Pasteurella multocida live attenuated vaccine
IN   Luo, Yugang; Vermeij, Paul;   ***Jacobs, Antonius Arnoldus Christiaan***
PA   Intervet International B.V., Neth.
SO   PCT Int. Appl., 31pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
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PI   WO 2006122586        A1    20061123    WO 2005-EP56995        20051221
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,
             KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX,
             MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
             SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
             VN, YU, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
             GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM
     AU 2005331860        A1    20061123    AU 2005-331860         20051221
     CA 2591624           A1    20061123    CA 2005-2591624        20051221
     EP 1831248           A1    20070912    EP 2005-857856         20051221
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     CN 101087803         A     20071212    CN 2005-80044494       20051221
     JP 2008523840        T     20080710    JP 2007-547497         20051221
     BR 200519381         A2    20090120    BR 2005-19381          20051221
     ZA 2007005087        A     20080827    ZA 2007-5087           20070613
     MX 2007007570        A     20070724    MX 2007-7570           20070621
     IN 2007CN02702       A     20070907    IN 2007-CN2702         20070621
     KR 2007092290        A     20070912    KR 2007-716568         20070719
PRAI US 2004-639447P      P     20041222
     WO 2005-EP56995      W     20051221
OSC.G   1     THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
RE.CNT  2     THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3   ANSWER 2 OF 2  CAPLUS  COPYRIGHT 2009 ACS on STN
AN   2005:607098  CAPLUS <<LOGINID::20091118>>
TI   Combination vaccine for poultry
IN     ***Jacobs,  Antonius Arnoldus Christiaan***  ; Van,  Empel Paul
     Cornelius Maria; Nuijten,  Petrus Johannes Maria
PA   Akzo Nobel N.V., Neth.; Van Empel, Paul Cornelius Maria
SO   PCT Int. Appl.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ---------------     ----   --------    --------------------   --------
PI   WO 2005063284        A1    20050714    WO 2004-EP53623        20041221
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
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             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
             RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
             MR, NE, SN, TD, TG
     CA 2550923           A1    20050714    CA 2004-2550923        20041221
     EP 1699483           A1    20060913    EP 2004-804958         20041221
     EP 1699483           B1    20090311
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS
     BR 2004017880        A     20070427    BR 2004-17880          20041221
     JP 2007518717        T     20070712    JP 2006-546172         20041221
     AT 424844            T     20090315    AT 2004-804958         20041221
     ES 2322272           T3    20090618    ES 2004-804958         20041221
     US 20090053262       A1    20090226    US 2006-582315         20060608
PRAI EP 2003-104954       A     20031223
     WO 2004-EP53623      W     20041221
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
RE.CNT  4     THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT


=> e empel paul/au
E1            1     EMPEL P V/AU
E2           14     EMPEL P VAN/AU
E3            0 --> EMPEL PAUL/AU
E4            2     EMPEL ROLAND/AU
E5           70     EMPEL W/AU
E6            8     EMPEL WOJCIECH/AU
E7            1     EMPELEN P VAN/AU
E8            1     EMPELEN PEPIJN/AU
E9            1     EMPELEN PEPIJN VAN/AU
E10           1     EMPELEN S/AU
E11           1     EMPELMANN M/AU
E12           6     EMPELMANN MARTIN/AU

=> e van empel paul/au
E1           26     VAN EMPEL P C M/AU
E2            1     VAN EMPEL P DR/AU
E3            8 --> VAN EMPEL PAUL/AU
E4            3     VAN EMPEL PAUL CORNELIUS MARIA/AU
E5            2     VAN EMPEL PIETER J/AU
E6            1     VAN EMPEL R/AU
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E8           35     VAN EMPEL TJARKO ADRIAAN RUDOLF/AU
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E10           5     VAN EMPEL V P M/AU
E11          21     VAN EMPEL VANESSA P M/AU
E12          21     VAN EMPELEN P/AU

=> s e1-e6 and ((over attenuat?)or rhinotrach?)
L4           35 ("VAN EMPEL P C M"/AU OR "VAN EMPEL P DR"/AU OR "VAN EMPEL PAUL"
              /AU OR "VAN EMPEL PAUL CORNELIUS MARIA"/AU OR "VAN EMPEL PIETER
              J"/AU OR "VAN EMPEL R"/AU) AND ((OVER ATTENUAT?) OR RHINOTRACH?)


=> dup rem l4
PROCESSING COMPLETED FOR L4
L5           14 DUP REM L4 (21 DUPLICATES REMOVED)

=> d bib ab kwic 1-
YOU HAVE REQUESTED DATA FROM 14 ANSWERS - CONTINUE? Y/(N):y

L5   ANSWER 1 OF 14  BIOSIS  COPYRIGHT (c) 2009 The Thomson Corporation  on STN
     DUPLICATE 1
AN   2006:324666  BIOSIS <<LOGINID::20091118>>
DN   PREV200600325257
TI   Vaccine potential of recombinant Ornithobacterium   ***rhinotracheale***
     antigens.
AU   Schuijffel, D. F.;   ***Van Empel, P. C. M.***  ; Segers, R. P. A. M.; Van
     Putten, J. P. M.; Nuijten, P. J. M. [Reprint Author]
CS   Nobilon Int BV, Bacteriol R and D, POB 320, NL-5830 AH Boxmeer,
```

Netherlands
piet.nuijten@Nobilonvaccines.com
SO Vaccine, (MAR 10 2006) Vol. 24, No. 11, pp. 1858-1867.
CODEN: VACCDE. ISSN: 0264-410X.
DT Article
LA English
ED Entered STN: 21 Jun 2006
Last Updated on STN: 21 Jun 2006
AB Ornithobacterium ***rhinotracheale*** is a pathogen involved in respiratory infection and systemic disease in poultry. Previously, eight potential vaccine candidates were identified that induced cross-protective immunity when administered to chickens as a multi-component vaccine. In this study, we analyzed the immunogenicity of these eight recombinant proteins by subunit vaccination, and characterized the different proteins and corresponding genes more thoroughly by sequencing, in vitro expression analysis, and cellular localization experiments.We found, that all genes encoding the eight antigens were highly conserved among different O. ***rhinotracheale*** serotypes, but the different antigens were not expressed by all serotypes. Cellular fractionation experiments indicated that the majority of the antigens are predominantly located in the outer membrane fraction. Vaccination of chickens with single-antigen vaccines demonstrated that the Or77 antigen was protective against serotypes that expressed Or77 in vitro, suggesting that the protein has strong potential as a vaccine antigen. Furthermore, immunization with four-component subunit vaccines indicated the existence of immunogenic synergism between the candidate vaccine antigens. (c) 2005 Elsevier Ltd. All rights reserved.
TI Vaccine potential of recombinant Ornithobacterium ***rhinotracheale*** antigens.
AU Schuijffel, D. F.; ***Van Empel, P. C. M.*** ; Segers, R. P. A. M.; Van Putten, J. P. M.; Nuijten, P. J. M. [Reprint Author]
AB Ornithobacterium ***rhinotracheale*** is a pathogen involved in respiratory infection and systemic disease in poultry. Previously, eight potential vaccine candidates were identified that. . . expression analysis, and cellular localization experiments.We found, that all genes encoding the eight antigens were highly conserved among different O. ***rhinotracheale*** serotypes, but the different antigens were not expressed by all serotypes. Cellular fractionation experiments indicated that the majority of the. . .
IT Major Concepts
Pharmacology; Infection; Immune System (Chemical Coordination and Homeostasis); Respiratory System (Respiration); Veterinary Medicine (Medical Sciences)
IT Diseases
Ornithobacterium ***rhinotracheale*** infection: respiratory system disease, bacterial disease, etiology, immunology, prevention and control
IT Chemicals & Biochemicals
recombinant Ornithobacterium ***rhinotracheale*** antigen vaccine: immunologic-drug, immunostimulant-drug
ORGN . . .
Chordates, Nonhuman Vertebrates, Vertebrates
ORGN Classifier
Gram-Negative Aerobic Rods and Cocci 06500
Super Taxa
Eubacteria; Bacteria; Microorganisms
Organism Name
Ornithobacterium ***rhinotracheale*** (species): pathogen
Taxa Notes
Bacteria, Eubacteria, Microorganisms

L5 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2005:607098 CAPLUS <<LOGINID::20091118>>
TI Combination vaccine for poultry
IN Jacobs, Antonius Arnoldus Christiaan; ***Van, Empel Paul Cornelius*** *** Maria*** ; Nuijten, Petrus Johannes Maria
PA Akzo Nobel N.V., Neth.; Van Empel, Paul Cornelius Maria
SO PCT Int. Appl.
CODEN: PIXXD2
DT Patent
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005063284	A1	20050714	WO 2004-EP53623	20041221
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2550923	A1	20050714	CA 2004-2550923	20041221
	EP 1699483	A1	20060913	EP 2004-804958	20041221
	EP 1699483	B1	20090311		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
	BR 2004017880	A	20070427	BR 2004-17880	20041221
	JP 2007518717	T	20070712	JP 2006-546172	20041221
	AT 424844	T	20090315	AT 2004-804958	20041221
	ES 2322272	T3	20090618	ES 2004-804958	20041221
	US 20090053262	A1	20090226	US 2006-582315	20060608
PRAI	EP 2003-104954	A	20031223		
	WO 2004-EP53623	W	20041221		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The present invention relates to a combination vaccine for the protection of poultry against Ornithobacterium ***rhinotracheale*** , to the use of a live ***over*** - ***attenuated*** Ornithobacterium ***rhinotracheale*** strain and a live attenuated poultry virus for the manufacturing of such a combination vaccine, to methods for the preparation of said combination vaccine and to vaccination kits for the immunization of poultry against Ornithobacterium ***rhinotracheale*** .

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

IN Jacobs, Antonius Arnoldus Christiaan; ***Van, Empel Paul Cornelius*** ***** Maria*** ; Nuijten, Petrus Johannes Maria

AB The present invention relates to a combination vaccine for the protection of poultry against Ornithobacterium ***rhinotracheale*** , to the use of a live ***over*** - ***attenuated*** Ornithobacterium ***rhinotracheale*** strain and a live attenuated poultry virus for the manufacturing of such a combination vaccine, to methods for the preparation of said combination vaccine and to vaccination kits for the immunization of poultry against Ornithobacterium ***rhinotracheale*** .

L5 ANSWER 3 OF 14 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
DUPLICATE 2

AN 2005:554651 BIOSIS <<LOGINID::20091118>>

DN PREV200510340117

TI Successful selection of cross-protective vaccine candidates for Ornithobacterium ***rhinotracheale*** infection.

AU Schuijffel, D. F.; ***van Empel, P. C. M.*** ; Pennings, A. M. M. A.; van Putten, J. P. M.; Nuijten, P. J. M. [Reprint Author]

CS Nobilon Int BV, Bacteriol R and D, POB 320,Exportstr 39B, NL-5830 AH Boxmeer, Netherlands
Piet.Nuijten@Nobilonvaccines.com

SO Infection and Immunity, (OCT 2005) Vol. 73, No. 10, pp. 6812-6821.
CODEN: INFIBR. ISSN: 0019-9567.

DT Article

LA English

ED Entered STN: 7 Dec 2005
Last Updated on STN: 7 Dec 2005

AB Ornithobacterium ***rhinotracheale*** is a bacterial pathogen known for causing respiratory disease in poultry. In this study, we demonstrate for the first time that cross-protective immunity against different O. ***rhinotracheale*** serotypes can be induced by live vaccination. Sera from these live-vaccinated and cross-protected birds were used to identify new vaccine targets by screening an O. ***rhinotracheale*** expression library. Out of 20,000 screened plaques, a total of 30 cross-reactive

clones were selected for further analysis. Western blot analysis and DNA sequencing identified eight different open reading frames. The genes encoding the eight cross-reactive antigens were amplified, cloned in an expression vector, and expressed in Escherichia coli. Purified recombinant proteins with a molecular mass ranging from 35.9 kDa to 62.9 kDa were mixed and tested as a subunit vaccine for (cross-) protection against challenge with homologous and heterologous O. ***rhinotracheale*** serotypes in chickens. Subunit vaccination resulted in the production of antibodies reactive to the recombinant proteins on Western blot, and this eight-valent vaccine conferred both homologous and heterologous protection against O. ***rhinotracheale*** challenge in chickens.

TI Successful selection of cross-protective vaccine candidates for Ornithobacterium ***rhinotracheale*** infection.

AU Schuijffel, D. F.; ***van Empel, P. C. M.*** ; Pennings, A. M. M. A.; van Putten, J. P. M.; Nuijten, P. J. M. [Reprint Author]

AB Ornithobacterium ***rhinotracheale*** is a bacterial pathogen known for causing respiratory disease in poultry. In this study, we demonstrate for the first time that cross-protective immunity against different O. ***rhinotracheale*** serotypes can be induced by live vaccination. Sera from these live-vaccinated and cross-protected birds were used to identify new vaccine targets by screening an O. ***rhinotracheale*** expression library. Out of 20,000 screened plaques, a total of 30 cross-reactive clones were selected for further analysis. Western blot. . . 62.9 kDa were mixed and tested as a subunit vaccine for (cross-) protection against challenge with homologous and heterologous O. ***rhinotracheale*** serotypes in chickens. Subunit vaccination resulted in the production of antibodies reactive to the recombinant proteins on Western blot, and this eight-valent vaccine conferred both homologous and heterologous protection against O. ***rhinotracheale*** challenge in chickens.

ORGN . . .
Chordates, Nonhuman Vertebrates, Vertebrates

ORGN Classifier
Gram-Negative Aerobic Rods and Cocci 06500

Super Taxa
Eubacteria; Bacteria; Microorganisms

Organism Name
Ornithobacterium ***rhinotracheale*** (species): pathogen

Taxa Notes
Bacteria, Eubacteria, Microorganisms

L5 ANSWER 4 OF 14 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
DUPLICATE 3

AN 2005:316197 BIOSIS <<LOGINID::20091118>>

DN PREV200510106203

TI Passive immunization of immune-suppressed animals: Chicken antibodies protect against Ornithobacterium ***rhinotracheale*** infection.

AU Schuijffel, D. F.; ***Van Empel, P. C. M.*** ; Pennings, A. M. M. A.; Van Putten, J. P. M.; Nuijten, P. J. M. [Reprint Author]

CS Nobilon Int BV, Bacteriol R and D, Exportstr 39B, NL-5830 AH Boxmeer, Netherlands
Piet.Nuijten@Nobilonvaccines.com

SO Vaccine, (MAY 16 2005) Vol. 23, No. 26, pp. 3404-3411.
CODEN: VACCDE. ISSN: 0264-410X.

DT Article

LA English

ED Entered STN: 17 Aug 2005
Last Updated on STN: 17 Aug 2005

AB Unravelling of the protective immunity acquired during a natural infection may contribute to vaccine development. To assess the role of antibody-mediated immunity in protection against Ornithobacterhan ***rhinotracheale*** infection in chickens, a novel experimental method was applied that combined immune depletion and passive transfer of immunity within the same host. Administration of cyclophosphamide (CY) to broiler chickens successfully suppressed B lymphocyte development, and therefore humoral immunity, as confirmed by histological and serological analysis. Challenge of CY-treated birds with O. ***rhinotracheale*** revealed a significantly higher pathology score in comparison to immune-competent birds that received the same bacterial challenge. Measurement of serum immunoglobulin levels of immune-competent birds revealed a positive correlation between IgA and/or IgG production and

protection against infection. Passive transfer of O. ***rhinotrachealespecific*** antiserum to the immune-suppressed birds prior to pathogen challenge significantly decreased morbidity. This protective effect was not observed after administration of control sera containing similar concentrations of immunoglobulins. Together, these results provide firm evidence that chicken humoral immunity to O. ***rhinotracheale*** is a key component in protection against infection. Our data confirm that the applied immune depletion and reconstitution approach is an attractive tool to analyse the nature of the protective immune response. (c) 2005 Elsevier Ltd. All rights reserved.

TI Passive immunization of immune-suppressed animals: Chicken antibodies protect against Ornithobacterium ***rhinotracheale*** infection.

AU Schuijffel, D. F.; ***Van Empel, P. C. M.*** ; Pennings, A. M. M. A.; Van Putten, J. P. M.; Nuijten, P. J. M. [Reprint Author]

AB. . . a natural infection may contribute to vaccine development. To assess the role of antibody- mediated immunity in protection against Ornithobacterhan ***rhinotracheale*** infection in chickens, a novel experimental method was applied that combined immune depletion and passive transfer of immunity within the. . . B lymphocyte development, and therefore humoral immunity, as confirmed by histological and serological analysis. Challenge of CY-treated birds with O. ***rhinotracheale*** revealed a significantly higher pathology score in comparison to immune-competent birds that received the same bacterial challenge. Measurement of serum. . . of immune-competent birds revealed a positive correlation between IgA and/or IgG production and protection against infection. Passive transfer of O. ***rhinotrachealespecific*** antiserum to the immune-suppressed birds prior to pathogen challenge significantly decreased morbidity. This protective effect was not observed after administration. . . of control sera containing similar concentrations of immunoglobulins. Together, these results provide firm evidence that chicken humoral immunity to O. ***rhinotracheale*** is a key component in protection against infection. Our data confirm that the applied immune depletion and reconstitution approach is. . .

IT . . .

Parts, Structures, & Systems of Organisms
serum: blood and lymphatics; B lymphocyte: immune system, blood and lymphatics

IT Diseases
Ornithobacterium ***rhinotracheale*** infection: bacterial disease, immunology

IT Chemicals & Biochemicals
IgG [immunoglobulin G]; IgA [immunoglobulin A]; cyclophosphamide: immunologic-drug

ORGN . . .
Chordates, Nonhuman Vertebrates, Vertebrates

ORGN Classifier
Gram-Negative Aerobic Rods and Cocci 06500

Super Taxa
Eubacteria; Bacteria; Microorganisms

Organism Name
Ornithobacterium ***rhinotracheale*** (species): pathogen

Taxa Notes
Bacteria, Eubacteria, Microorganisms

L5 ANSWER 5 OF 14 EMBASE COPYRIGHT (c) 2009 Elsevier B.V. All rights reserved on STN DUPLICATE 4

AN 2005142399 EMBASE <<LOGINID::20091118>>

TI Diagnosis and incidence of Ornithobacterium ***rhinotracheale*** infections in commercial broiler chickens at slaughter.

AU van Veen, L.; Nieuwenhuizen, J.; Mekkes, D.

CS Animal Health Service, PO Box 9, 7400 AA Deventer, Netherlands.

AU Vrijenhoek, M.; ***van Empel, P., Dr. (correspondence)***

CS Intervet International, PO Box 31, 5830 AA Boxmeer, Netherlands.

SO Veterinary Record, (5 Mar 2005) Vol. 156, No. 10, pp. 315-317.
Refs: 11
ISSN: 0042-4900 CODEN: VETRAX

CY United Kingdom

DT Journal; Note

FS 027 Biophysics, Bioengineering and Medical Instrumentation
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
005 General Pathology and Pathological Anatomy

LA English
ED Entered STN: 14 Apr 2005
Last Updated on STN: 14 Apr 2005
TI Diagnosis and incidence of Ornithobacterium ***rhinotracheale***
infections in commercial broiler chickens at slaughter.
AU Vrijenhoek, M.; ***van Empel, P., Dr. (correspondence)***
CS Intervet International, PO Box 31, 5830 AA Boxmeer, Netherlands.
CT Medical Descriptors:
animal . . . isolation
Belgium
*bird disease: DI, diagnosis
*bird disease: EP, epidemiology
*bird disease: ET, etiology
blood sampling
controlled study
Denmark
diagnostic procedure
enzyme linked immunosorbent assay
Europe
France
frozen section
geographic distribution
Germany
Greece
health survey
herd
Hungary
immunofluorescence test
immunohistochemistry
incidence
intermethod comparison
Ireland
nonhuman
note
*Ornithobacterium
****Ornithobacterium rhinotracheale***
peroxidase antiperoxidase complex
Poland
prevalence
sensitivity analysis
serology
slaughterhouse
United Kingdom
enzyme antibody
paraffin
peroxidase

L5 ANSWER 6 OF 14 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
AN 2003:453878 BIOSIS <<LOGINID::20091118>>
DN PREV200300453878
TI The chicken humoral immune response is involved in protection against
Ornithobacterium ***rhinotracheale*** infection.
AU Schuijffel, D. F. [Reprint Author]; Nuijten, P. J. M. [Reprint Author];
Pennings, A. M. M. A. [Reprint Author]; van Putten, J.; ***van Empel, P.***
*** C. M.*** [Reprint Author]
CS Bacteriology R and D, Intervet International BV, Wim de Korverstraat 35,
5830 AA, Boxmeer, Netherlands
SO FEMS Congress of European Microbiologists Abstract Book, (2003) No. 1, pp.
269-270. print.
Meeting Info.: 1st Federation of European Microbiological Societies (FEMS)
Congress of European Microbiologists. Ljubljana, Slovenia. June 29-July
03, 2003. FEMS (Federation of European Microbiological Societies).
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 1 Oct 2003
Last Updated on STN: 1 Oct 2003
TI The chicken humoral immune response is involved in protection against
Ornithobacterium ***rhinotracheale*** infection.
AU. . . D. F. [Reprint Author]; Nuijten, P. J. M. [Reprint Author];
Pennings, A. M. M. A. [Reprint Author]; van Putten, J.; ***van Empel, P.***

*** C. M.*** [Reprint Author]
ORGN . . .
Chordates, Nonhuman Vertebrates, Vertebrates
ORGN Classifier
Gram-Negative Aerobic Rods and Cocci 06500
Super Taxa
Eubacteria; Bacteria; Microorganisms
Organism Name
Ornithobacterium ***rhinotracheale*** (species): pathogen
Taxa Notes
Bacteria, Eubacteria, Microorganisms

L5 ANSWER 7 OF 14 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
AN 2001:214241 BIOSIS <<LOGINID::20091118>>
DN PREV200100214241
TI Methods for the detection of antibodies to ornithobacterium ***rhinotracheale*** .
AU Storm, Paul Karel [Inventor, Reprint author]; ***van Empel, Paul*** *** Cornelius Maria*** [Inventor]
CS Boxmeer, Netherlands
ASSIGNEE: AKZO Nobel N.V., Arnhem, Netherlands
PI US 6114131 20000905
SO Official Gazette of the United States Patent and Trademark Office Patents, (Sep. 5, 2000) Vol. 1238, No. 1. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.
DT Patent
LA English
ED Entered STN: 2 May 2001
Last Updated on STN: 18 Feb 2002
AB The present invention relates to a novel bacterial respiratory poultry disease and the identification of the causative agent. A vaccine derived from this agent was effective in preventing the disease in chickens challenged with the virulent field strains.
TI Methods for the detection of antibodies to ornithobacterium ***rhinotracheale*** .
AU Storm, Paul Karel [Inventor, Reprint author]; ***van Empel, Paul*** *** Cornelius Maria*** [Inventor]
IT Methods & Equipment
Ornithobacterium ***rhinotracheale*** antibody detection method: detection method

L5 ANSWER 8 OF 14 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
DUPLICATE 5
AN 1999:379763 BIOSIS <<LOGINID::20091118>>
DN PREV199900379763
TI Ornithobacterium ***rhinotracheale*** : A review.
AU ***van Empel, P.C.M.*** [Reprint author]; Hafez, H. M.
CS Intervet International, 5830 AA, Boxmeer, Netherlands
SO Avian Pathology, (June, 1999) Vol. 28, No. 3, pp. 217-227. print.
CODEN: AVPADN. ISSN: 0307-9457.
DT Article
General Review; (Literature Review)
LA English
ED Entered STN: 13 Sep 1999
Last Updated on STN: 13 Sep 1999
AB Ornithobacterium ***rhinotracheale*** is a relatively recently discovered bacterium of the rRNA superfamily V. It is of worldwide distribution in commercial poultry, in which it is associated with respiratory diseases, and it is also found in wild birds. Airsacculitis and pneumonia are the most common features of infection with O. ***rhinotracheale*** . These signs can be induced by aerosol in intra-tracheal or intra-thoracic administration of the organism, and can be aggravated by other factors, such as respiratory viruses, bacteria or climatic conditions. Osteitis, meningitis and joint-infections, which can be induced by intravenous application, have been associated with O. ***rhinotracheale*** , but it remains uncertain whether the organism should be regarded as a primary pathogen. The infection can be transmitted horizontally by aerosol, as well as vertically through eggs, which probably accounts for its rapid and worldwide spread. Although O. ***rhinotracheale*** is difficult to identify, some commercial identification systems have been found to be suitable, although the media

used in such systems will not always support its growth. A PCR assay was also found to be suitable for identification purposes. Twelve serotypes can be distinguished within the species O. ***rhinotracheale*** , of which serotype A is the most prevalent. Genetic investigation has revealed that more species or subspecies probably exist within the genus Ornithobacterium. Therapeutic treatment of the disease can be difficult because acquired resistance against the regular antibiotics is very common within the genus. Vaccination with autogenous inactivated vaccines has been successful in reducing clinical signs, but success depends on the adjuvant used. Only potent oil adjuvants are effective in young birds with maternal antibodies, but the use of these adjuvants is known to induce some local reactions. Live vaccination is feasible, but up to now, no avirulent strains of O. ***rhinotracheale*** have been found. Vaccination of broiler breeders induced protection against experimental infection of the progeny to at least 3 weeks of age.

TI Ornithobacterium ***rhinotracheale*** : A review.

AU ***van Empel, P.C.M.*** [Reprint author]; Hafez, H. M.

AB Ornithobacterium ***rhinotracheale*** is a relatively recently discovered bacterium of the rRNA superfamily V. It is of worldwide distribution in commercial poultry, in. . . and it is also found in wild birds. Airsacculitis and pneumonia are the most common features of infection with O. ***rhinotracheale*** . These signs can be induced by aerosol in intra-tracheal or intra-thoracic administration of the organism, and can be aggravated by. . . bacteria or climatic conditions. Osteitis, meningitis and joint-infections, which can be induced by intravenous application, have been associated with O. ***rhinotracheale*** , but it remains uncertain whether the organism should be regarded as a primary pathogen. The infection can be transmitted horizontally by aerosol, as well as vertically through eggs, which probably accounts for its rapid and worldwide spread. Although O. ***rhinotracheale*** is difficult to identify, some commercial identification systems have been found to be suitable, although the media used in such. . . PCR assay was also found to be suitable for identification purposes. Twelve serotypes can be distinguished within the species O. ***rhinotracheale*** , of which serotype A is the most prevalent. Genetic investigation has revealed that more species or subspecies probably exist within. . . is known to induce some local reactions. Live vaccination is feasible, but up to now, no avirulent strains of O. ***rhinotracheale*** have been found. Vaccination of broiler breeders induced protection against experimental infection of the progeny to at least 3 weeks. . .

IT Major Concepts
Infection; Veterinary Medicine (Medical Sciences)

IT Diseases
Ornithobacterium ***rhinotracheale*** infection: bacterial disease, clinical pathology, diagnosis, treatment, epidemiology

ORGN . . .
poultry: host

Taxa Notes
Animals, Birds, Chordates, Nonhuman Vertebrates, Vertebrates

ORGN Classifier
Bacteria 05000

Super Taxa
Microorganisms

Organism Name
Ornithobacterium ***rhinotracheale*** : pathogen

Taxa Notes
Bacteria, Eubacteria, Microorganisms

L5 ANSWER 9 OF 14 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN

AN 1999:313730 BIOSIS <<LOGINID::20091118>>

DN PREV199900313730

TI Immunohistochemical and serological investigation of experimental Ornithobacterium ***rhinotracheale*** infection in chickens.

AU ***van Empel, Paul*** [Reprint author]; Vrijenhoek, Mieke; Goovaerts, Danny; van den Bosch, Han

CS Intervet International B.V., Wim de Korverstraat 35, NL-5830 AA, Boxmeer, Netherlands

SO Avian Pathology, (April, 1999) Vol. 28, No. 2, pp. 187-193. print.
CODEN: AVPADN. ISSN: 0307-9457.

DT Article

LA English
ED Entered STN: 17 Aug 1999
Last Updated on STN: 17 Aug 1999
AB Immunohistochemical techniques were used to prove that Ornithobacterium ***rhinotracheale*** was the causative agent of lesions in the air sacs and lungs in chickens, but only after infection with Newcastle Disease virus (NDV). At first, the bacteria attached to the epithelium of the air sacs. Subsequently, they infiltrated the air sacs, and caused thickening of the air sacs, the formation of oedematous and granulomatous tissue, and accumulation of macrophages. The infection peaked at 5 to 9 days, after which recovery was seen. In the lungs, some areas with bronchially-associated lymphoid tissue were affected. The other organs investigated were shown not to be affected. In the absence of NDV infection, aerosol exposure of chickens to O. ***rhinotracheale*** only resulted in minimal and temporary microscopic air sac lesions. No O. ***rhinotracheale*** cells or fragments could be detected at any time point later than 2 days post-exposure. In spite of the absence of visible lesions, chickens exposedto O. ***rhinotracheale*** without prior NDV infection reacted serologically. The duration and the titre of this immune response was indistinguishable from that obtained in chickens exposed after NDV infection. Thus, infection with O. ***rhinotracheale*** appears to be restricted to the respiratory tract, with lesions only evident in birds previously infected with NDV, even though a strong serological response can be established in the absence of prior viral infection.
TI Immunohistochemical and serological investigation of experimental Ornithobacterium ***rhinotracheale*** infection in chickens.
AU ***van Empel, Paul*** [Reprint author]; Vrijenhoek, Mieke; Goovaerts, Danny; van den Bosch, Han
AB Immunohistochemical techniques were used to prove that Ornithobacterium ***rhinotracheale*** was the causative agent of lesions in the air sacs and lungs in chickens, but only after infection with Newcastle. . . organs investigated were shown not to be affected. In the absence of NDV infection, aerosol exposure of chickens to O. ***rhinotracheale*** only resulted in minimal and temporary microscopic air sac lesions. No O. ***rhinotracheale*** cells or fragments could be detected at any time point later than 2 days post-exposure. In spite of the absence of visible lesions, chickens exposedto O. ***rhinotracheale*** without prior NDV infection reacted serologically. The duration and the titre of this immune response was indistinguishable from that obtained in chickens exposed after NDV infection. Thus, infection with O. ***rhinotracheale*** appears to be restricted to the respiratory tract, with lesions only evident in birds previously infected with NDV, even though. . .
IT . . .
Respiratory System (Respiration); Veterinary Medicine (Medical Sciences)
IT Diseases
Newcastle disease virus infection: viral disease
Newcastle Disease (MeSH)
IT Diseases
Ornithobacterium ***rhinotracheale*** infection: bacterial disease, respiratory system disease, experimental, histopathology, serology
ORGN Classifier
Bacteria 05000
Super Taxa
Microorganisms
Organism Name
Ornithobacterium ***rhinotracheale*** : pathogen
Taxa Notes
Bacteria, Eubacteria, Microorganisms
ORGN Classifier
Galliformes 85536
Super Taxa
Aves; Vertebrata; Chordata; Animalia
Organism Name
chicken: host,. . .

L5 ANSWER 10 OF 14 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
AN 1998:489621 BIOSIS <<LOGINID::20091118>>

DN PREV199800489621
TI Vaccination of chickens against Ornithobacterium ***rhinotracheale*** infection.
AU ***van Empel, Paul*** ; Bosch, Han Van Den
CS Intervet International, P.O. Box 31, NL-5830 AA Boxmeer, Netherlands
SO Avian Diseases, (July-Sept., 1998) Vol. 42, No. 3, pp. 572-578. print.
CODEN: AVDIAI. ISSN: 0005-2086.
DT Article
LA English
ED Entered STN: 5 Nov 1998
Last Updated on STN: 5 Nov 1998
AB Vaccination of young broilers with inactivated vaccines against experimental Ornithobacterium ***rhinotracheale*** challenge was found to be effective, but the results of vaccination were influenced, in a negative way, by the presence of maternal antibodies. The use of a strong adjuvant, such as mineral oil, in a bacterin was necessary to obtain good protection when maternal antibodies were present. Vaccination of broiler breeders resulted in high serologic responses and protection of their progeny against experimental O. ***rhinotracheale*** challenge up to an age of 4 wk. Vaccination of broilers with a live vaccine was found to be effective when the maternal antibody levels were law. A combination of vaccinating the breeders with a bacterin and their progeny with a live vaccine at approximately 3 wk of age seems to be the best way to protect broilers against O. ***rhinotracheale*** infection.
TI Vaccination of chickens against Ornithobacterium ***rhinotracheale*** infection.
AU ***van Empel, Paul*** ; Bosch, Han Van Den
AB Vaccination of young broilers with inactivated vaccines against experimental Ornithobacterium ***rhinotracheale*** challenge was found to be effective, but the results of vaccination were influenced, in a negative way, by the presence. . . antibodies were present. Vaccination of broiler breeders resulted in high serologic responses and protection of their progeny against experimental O. ***rhinotracheale*** challenge up to an age of 4 wk. Vaccination of broilers with a live vaccine was found to be effective. . . a live vaccine at approximately 3 wk of age seems to be the best way to protect broilers against O. ***rhinotracheale*** infection.
ORGN Classifier
Bacteria 05000
Super Taxa
Microorganisms
Organism Name
Ornithobacterium- ***rhinotracheale*** : pathogen
Taxa Notes
Bacteria, Eubacteria, Microorganisms
ORGN Classifier
Galliformes 85536
Super Taxa
Aves; Vertebrata; Chordata; Animalia
Organism Name
chicken: broiler. . .

L5 ANSWER 11 OF 14 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN DUPLICATE 6
AN 1997:111985 BIOSIS <<LOGINID::20091118>>
DN PREV199799411188
TI Identification and serotyping of Ornithobacterium ***rhinotracheale*** .
AU ***Van Empel, Paul*** [Reprint author]; Van Den Bosch, Han; Loeffen, Peter; Storm, Paul
CS Intervet Int. B.V., P.O. Box 31, NL-5830 AA Boxmeer, Netherlands
SO Journal of Clinical Microbiology, (1997) Vol. 35, No. 2, pp. 418-421.
CODEN: JCMIDW. ISSN: 0095-1137.
DT Article
LA English
ED Entered STN: 10 Mar 1997
Last Updated on STN: 10 Mar 1997
AB In the present study 443 strains of Ornithobacterium ***rhinotracheale*** , a causative agent of respiratory disease in fowl, were investigated biochemically and serologically. In both ways O. ***rhinotracheale*** could be differentiated from other gram-negative

rods and, more particularly, from the Pasteurella-like bacteria potentially pathogenic for fowl. For the biochemical characterization of O. ***rhinotracheale*** the API 20NE identification strip proved to be useful, although O. ***rhinotracheale*** is not included in the API system. Serologically, by using monovalent antisera in agar gel precipitation (AGP) tests and enzyme-linked immunosorbent assays (ELISAs), seven serotypes (serotypes A to G) of O. ***rhinotracheale*** could be discriminated. The AGP test was chosen as the preferred method to be used for serotyping. Isolates of serotype A were found to be the most prevalent, especially in chickens. Isolates from turkeys were more heterogeneously divided over the serotypes. Some strains showed cross-reactivity between serotypes A, B, and E. Five O. ***rhinotracheale*** strains could not be serotyped with the available antisera. Relationships between the geographic origin and the serotypes were found. By the ELISA the presence of antibodies against O. ***rhinotracheale*** could be detected in 1-day-old birds as well as in birds with clinical signs, and therefore, it might be useful for diagnostic purposes.

TI Identification and serotyping of Ornithobacterium ***rhinotracheale*** .

AU ***Van Empel, Paul*** [Reprint author]; Van Den Bosch, Han; Loeffen, Peter; Storm, Paul

AB In the present study 443 strains of Ornithobacterium ***rhinotracheale*** , a causative agent of respiratory disease in fowl, were investigated biochemically and serologically. In both ways O. ***rhinotracheale*** could be differentiated from other gram-negative rods and, more particularly, from the Pasteurella-like bacteria potentially pathogenic for fowl. For the biochemical characterization of O. ***rhinotracheale*** the API 20NE identification strip proved to be useful, although O. ***rhinotracheale*** is not included in the API system. Serologically, by using monovalent antisera in agar gel precipitation (AGP) tests and enzyme-linked immunosorbent assays (ELISAs), seven serotypes (serotypes A to G) of O. ***rhinotracheale*** could be discriminated. The AGP test was chosen as the preferred method to be used for serotyping. Isolates of serotype. . . turkeys were more heterogeneously divided over the serotypes. Some strains showed cross-reactivity between serotypes A, B, and E. Five O. ***rhinotracheale*** strains could not be serotyped with the available antisera. Relationships between the geographic origin and the serotypes were found. By the ELISA the presence of antibodies against O. ***rhinotracheale*** could be detected in 1-day-old birds as well as in birds with clinical signs, and therefore, it might be useful. . .

ORGN . . .

Name
turkey

Taxa Notes
Animals, Birds, Chordates, Nonhuman Vertebrates, Vertebrates

ORGN Classifier
Organisms 00500

Super Taxa
Organisms

Organism Name
Ornithobacterium ***rhinotracheale***

Taxa Notes
Organisms

ORGN Classifier
Pasteurellaceae 06703

Super Taxa
Facultatively Anaerobic Gram-Negative Rods; Eubacteria; Bacteria; Microorganisms

Organism Name
Pasteurellaceae

Taxa. . .

L5 ANSWER 12 OF 14 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN

AN 2002:51887 BIOSIS <<LOGINID::20091118>>

DN PREV200200051887

TI Ornithobacterium ***rhinotracheale*** vaccine and method of immunization.

AU Storm, P. K. [Inventor]; ***Van, Empel, P. C. M.*** [Inventor]

CS Boxmeer, Netherlands
ASSIGNEE: AKZO NOBEL N.V.
PI US 5576003 19961119
SO Official Gazette of the United States Patent and Trademark Office Patents, (Nov. 19, 1996) Vol. 1192, No. 3, pp. 1977. print.
CODEN: OGUPE7. ISSN: 0098-1133.
DT Patent
LA English
ED Entered STN: 2 Jan 2002
Last Updated on STN: 25 Feb 2002
TI Ornithobacterium ***rhinotracheale*** vaccine and method of immunization.
AU Storm, P. K. [Inventor]; ***Van, Empel, P. C. M.*** [Inventor]
IT Miscellaneous Descriptors
poultry industry; BACTERIA; IMMUNIZATION; ORNITHOBACTERIUM ***RHINOTRACHEALE*** ; PHARMACEUTICALS; VACCINES; VETERINARY MEDICINE

L5 ANSWER 13 OF 14 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
AN 1997:67123 BIOSIS <<LOGINID::20091118>>
DN PREV199799366326
TI Experimental infection in turkeys and chickens with Ornithobacterium ***rhinotracheale*** .
AU ***Van Empel, Paul*** ; Van Den Bosch, Han; Goovaerts, Danny; Storm, Paul
CS Intervet Int., PO Box 31, NL-5830 AA Boxmeer, Netherlands
SO Avian Diseases, (1996) Vol. 40, No. 4, pp. 858-864.
CODEN: AVDIAI. ISSN: 0005-2086.
DT Article
LA English
ED Entered STN: 11 Feb 1997
Last Updated on STN: 11 Feb 1997
AB Ornithobacterium ***rhinotracheale*** was found to cause growth retardation in both turkeys and chickens after experimental intra-air sac administration and to Cause growth retardation together with airsacculitis and pneumonia after aerosol administration. Both turkey and chicken isolates of O. ***rhinotracheale*** were able to induce the same kind of respiratory inflammations and weight-gain losses in chickens as well as turkeys. Turkey ***rhinotracheitis*** virus was found to have a triggering effect on the O. ***rhinotracheale*** infection in turkeys, and Newcastle disease virus and to a lesser extent infectious bronchitis virus showed triggering effects on the O. ***rhinotracheale*** infection in chickens. Ornithobacterium ***rhinotracheale*** could be reisolated from affected organs of experimentally infected birds.
TI Experimental infection in turkeys and chickens with Ornithobacterium ***rhinotracheale*** .
AU ***Van Empel, Paul*** ; Van Den Bosch, Han; Goovaerts, Danny; Storm, Paul
AB Ornithobacterium ***rhinotracheale*** was found to cause growth retardation in both turkeys and chickens after experimental intra-air sac administration and to Cause growth retardation together with airsacculitis and pneumonia after aerosol administration. Both turkey and chicken isolates of O. ***rhinotracheale*** were able to induce the same kind of respiratory inflammations and weight-gain losses in chickens as well as turkeys. Turkey ***rhinotracheitis*** virus was found to have a triggering effect on the O. ***rhinotracheale*** infection in turkeys, and Newcastle disease virus and to a lesser extent infectious bronchitis virus showed triggering effects on the O. ***rhinotracheale*** infection in chickens. Ornithobacterium ***rhinotracheale*** could be reisolated from affected organs of experimentally infected birds.
ORGN . . .
Name
chicken
turkey
Taxa Notes
Animals, Birds, Chordates, Nonhuman Vertebrates, Vertebrates
ORGN Classifier
Organisms 00500
Super Taxa
Organisms
Organism Name

```
      Ornithobacterium   ***rhinotracheale***
    Taxa Notes
      Organisms

L5   ANSWER 14 OF 14  BIOSIS  COPYRIGHT (c) 2009 The Thomson Corporation  on
     STN                                              DUPLICATE 7
AN   1994:258082  BIOSIS <<LOGINID::20091118>>
DN   PREV199497271082
TI   Respiratory problems, growth depression and arthritis in commercial
     turkeys and broilers caused by a Pasteurella-like organism.
AU   Van Beek, P. N. G. M. [Reprint author];   ***Van Empel, P. C. M.***  ; Van
     Den Bosch, G.; Storm, P. K.; Bongers, J. H. [Reprint author]; Du Preez, J.
     H.
CS   Stichting Gezondheidsdienst voor Dieren in Zuid Nederland,
SO   Tijdschrift voor Diergeneeskunde, (1994) Vol. 119, No. 4, pp. 99-101.
     CODEN: TIDIAY. ISSN: 0040-7453.
DT   Article
LA   Netherlandish
ED   Entered STN: 8 Jun 1994
     Last Updated on STN: 8 Jun 1994
AB   Since August 1993 moderate to serious respiratory problems with necrotic
     pneumonia, growthdepression and fast increasing mortality are seen in
     commercial turkeys (2-8 weeks of age) and broilers (4-6 weeks of age).  An
     unidentified pleiomorphic Gram-negative rod was isolated from affected
     tissues.  This Pasteurella-like organisms, with yet unknown taxonomy, is
     recently named Ornithobacterium   ***rhinotracheale***   gen. nov. sp.
     nov. or 'Taxon 28'.  Experimentally severe growthdepression and arthritis
     could be evoked in commercial turkeys and chickens.  Respiratory signs
     caused by O.   ***rhinotracheale***   could not (yet) be reproduced
     experimentally.  This is the first report of the isolation of this
     organism in poultry in the Netherlands findings.
AU   Van Beek, P. N. G. M. [Reprint author];   ***Van Empel, P. C. M.***  ; Van
     Den Bosch, G.; Storm, P. K.; Bongers, J. H. [Reprint author]; Du Preez, J.
     H.
AB.  .  .  unidentified pleiomorphic Gram-negative rod was isolated from
     affected tissues.  This Pasteurella-like organisms, with yet unknown
     taxonomy, is recently named Ornithobacterium   ***rhinotracheale***   gen.
     nov. sp. nov. or 'Taxon 28'.  Experimentally severe growthdepression and
     arthritis could be evoked in commercial turkeys and chickens.  Respiratory
     signs caused by O.   ***rhinotracheale***   could not (yet) be reproduced
     experimentally.  This is the first report of the isolation of this
     organism in poultry in.  .  .
ORGN .  .  .
Name
      Galliformes
    Taxa Notes
      Animals, Birds, Chordates, Nonhuman Vertebrates, Vertebrates
ORGN Classifier
      Organisms   00500
    Super Taxa
      Organisms
    Organism Name
      Ornithobacterium   ***rhinotracheale***
    Taxa Notes
      Organisms


=> e nuijten petrus/au
E1          80     NUIJTEN P J M/AU
E2           7     NUIJTEN PETER/AU
E3           0 --> NUIJTEN PETRUS/AU
E4           1     NUIJTEN PETRUS A C M/AU
E5           1     NUIJTEN PETRUS J M/AU
E6          14     NUIJTEN PETRUS JOHANNES MARIA/AU
E7           6     NUIJTEN PIET/AU
E8           2     NUIJTEN PIET J A/AU
E9          45     NUIJTEN PIET J M/AU
E10          1     NUIJTEN PUSTJENS GERRY MARIA GERTRUDA JOHANNA/AU
E11          4     NUIJTEN S/AU
E12          2     NUIJTEN S M/AU
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=> s e1-e10 and ((over attenuat?)or rhinotrach?)
L6          24 ("NUIJTEN P J M"/AU OR "NUIJTEN PETER"/AU OR "NUIJTEN PETRUS"/AU
               OR "NUIJTEN PETRUS A C M"/AU OR "NUIJTEN PETRUS J M"/AU OR "NUI
               JTEN PETRUS JOHANNES MARIA"/AU OR "NUIJTEN PIET"/AU OR "NUIJTEN
               PIET J A"/AU OR "NUIJTEN PIET J M"/AU OR "NUIJTEN PUSTJENS GERRY
               MARIA GERTRUDA JOHANNA"/AU) AND ((OVER ATTENUAT?) OR RHINOTRACH
               ?)

=> dup rem l6
PROCESSING COMPLETED FOR L6
L7            7 DUP REM L6 (17 DUPLICATES REMOVED)

=> d bib ab kwic 1-
YOU HAVE REQUESTED DATA FROM 7 ANSWERS - CONTINUE? Y/(N):y

L7   ANSWER 1 OF 7  BIOSIS  COPYRIGHT (c) 2009 The Thomson Corporation  on STN
     DUPLICATE 1
AN   2006:324666  BIOSIS <<LOGINID::20091118>>
DN   PREV200600325257
TI   Vaccine potential of recombinant Ornithobacterium   ***rhinotracheale***
     antigens.
AU   Schuijffel, D. F.; Van Empel, P. C. M.; Segers, R. P. A. M.; Van Putten,
     J. P. M.;   ***Nuijten, P. J. M.***   [Reprint Author]
CS   Nobilon Int BV, Bacteriol R and D, POB 320, NL-5830 AH Boxmeer,
     Netherlands
     piet.nuijten@Nobilonvaccines.com
SO   Vaccine, (MAR 10 2006) Vol. 24, No. 11, pp. 1858-1867.
     CODEN: VACCDE. ISSN: 0264-410X.
DT   Article
LA   English
ED   Entered STN: 21 Jun 2006
     Last Updated on STN: 21 Jun 2006
AB   Ornithobacterium   ***rhinotracheale***   is a pathogen involved in
     respiratory infection and systemic disease in poultry.  Previously, eight
     potential vaccine candidates were identified that induced cross-protective
     immunity when administered to chickens as a multi-component vaccine.  In
     this study, we analyzed the immunogenicity of these eight recombinant
     proteins by subunit vaccination, and characterized the different proteins
     and corresponding genes more thoroughly by sequencing, in vitro expression
     analysis, and cellular localization experiments.We found, that all genes
     encoding the eight antigens were highly conserved among different O.
       ***rhinotracheale***   serotypes, but the different antigens were not
     expressed by all serotypes.  Cellular fractionation experiments indicated
     that the majority of the antigens are predominantly located in the outer
     membrane fraction.  Vaccination of chickens with single-antigen vaccines
     demonstrated that the Or77 antigen was protective against serotypes that
     expressed Or77 in vitro, suggesting that the protein has strong potential
     as a vaccine antigen.  Furthermore, immunization with four-component
     subunit vaccines indicated the existence of immunogenic synergism between
     the candidate vaccine antigens. (c) 2005 Elsevier Ltd.  All rights
     reserved.
TI   Vaccine potential of recombinant Ornithobacterium   ***rhinotracheale***
     antigens.
AU   Schuijffel, D. F.; Van Empel, P. C. M.; Segers, R. P. A. M.; Van Putten,
     J. P. M.;   ***Nuijten, P. J. M.***   [Reprint Author]
AB   Ornithobacterium   ***rhinotracheale***   is a pathogen involved in
     respiratory infection and systemic disease in poultry.  Previously, eight
     potential vaccine candidates were identified that.  .  .  expression
     analysis, and cellular localization experiments.We found, that all genes
     encoding the eight antigens were highly conserved among different O.
       ***rhinotracheale***   serotypes, but the different antigens were not
     expressed by all serotypes.  Cellular fractionation experiments indicated
     that the majority of the.  .  .
IT   Major Concepts
        Pharmacology; Infection; Immune System (Chemical Coordination and
        Homeostasis); Respiratory System (Respiration); Veterinary Medicine
        (Medical Sciences)
IT   Diseases
        Ornithobacterium   ***rhinotracheale***   infection: respiratory system
        disease, bacterial disease, etiology, immunology, prevention and
        control
```

IT Chemicals & Biochemicals
recombinant Ornithobacterium ***rhinotracheale*** antigen vaccine: immunologic-drug, immunostimulant-drug
ORGN . . .
Chordates, Nonhuman Vertebrates, Vertebrates
ORGN Classifier
Gram-Negative Aerobic Rods and Cocci 06500
Super Taxa
Eubacteria; Bacteria; Microorganisms
Organism Name
Ornithobacterium ***rhinotracheale*** (species): pathogen
Taxa Notes
Bacteria, Eubacteria, Microorganisms

L7 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2005:902911 CAPLUS <<LOGINID::20091118>>
DN 143:243067
TI Protein and cDNA sequences of eight novel Ornithobacterium ***rhinotracheale*** antigens and use in vaccines
IN Schuijffel, Danielle Francisca; ***Nuijten, Petrus Johannes Maria***
PA Akzo Nobel N. V., Neth.
SO PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005077972	A1	20050825	WO 2005-EP50577	20050209
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2005212850	A1	20050825	AU 2005-212850	20050209
	CA 2553703	A1	20050825	CA 2005-2553703	20050209
	EP 1716169	A1	20061102	EP 2005-701653	20050209
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
	BR 2005007281	A	20070703	BR 2005-7281	20050209
	JP 2007537723	T	20071227	JP 2006-552621	20050209
	MX 2006008760	A	20070123	MX 2006-8760	20060802
	IN 2006CN02908	A	20070608	IN 2006-CN2908	20060808
	US 20080008718	A1	20080110	US 2006-588992	20060810
PRAI	EP 2004-75427	A	20040211		
	WO 2005-EP50577	W	20050209		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
AB The present invention relates to nucleic acids encoding Ornithobacterium ***rhinotracheale*** proteins, to DNA fragments, recombinant DNA mols., live recombinant carriers and to host cells comprising such nucleic acids. The present invention also relates to Ornithobacterium ***rhinotracheale*** proteins and to antibodies against such proteins. Another embodiment of the invention relates to such proteins for use in vaccines and to the use of such proteins in the manufg. of such vaccines. Also an embodiment of the invention relates to vaccines comprising such nucleic acids, DNA fragments, recombinant DNA mols., live recombinant carriers, host cells, proteins or antibodies against such proteins. Finally, again another embodiment of the invention relates to methods for the prepn. of such vaccines.
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
TI Protein and cDNA sequences of eight novel Ornithobacterium ***rhinotracheale*** antigens and use in vaccines
IN Schuijffel, Danielle Francisca; ***Nuijten, Petrus Johannes Maria***
AB The present invention relates to nucleic acids encoding Ornithobacterium

rhinotracheale proteins, to DNA fragments, recombinant DNA mols., live recombinant carriers and to host cells comprising such nucleic acids. The present invention also relates to Ornithobacterium ***rhinotracheale*** proteins and to antibodies against such proteins. Another embodiment of the invention relates to such proteins for use in vaccines. . .

IT Gene, animal
RL: BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(Ornithobacterium ***rhinotracheale*** antigen; protein and cDNA sequences of eight novel Ornithobacterium ***rhinotracheale*** antigens and use in vaccines)

IT Infection
(bacterial, treatment of; protein and cDNA sequences of eight novel Ornithobacterium ***rhinotracheale*** antigens and use in vaccines)

IT Infection
(bursal, vacccine aganist; protein and cDNA sequences of eight novel Ornithobacterium ***rhinotracheale*** antigens and use in vaccines)

IT Anemia (disease)
(chicken, vacccine aganist; protein and cDNA sequences of eight novel Ornithobacterium ***rhinotracheale*** antigens and use in vaccines)

IT Gallus domesticus
(pathogen; protein and cDNA sequences of eight novel Ornithobacterium ***rhinotracheale*** antigens and use in vaccines)

IT Anas domesticus
(plague virus, vacccine aganist; protein and cDNA sequences of eight novel Ornithobacterium ***rhinotracheale*** antigens and use in vaccines)

IT Antimicrobial agents
Antiviral agents
Human
Molecular cloning
Ornithobacterium ***rhinotracheale***
Protein sequences
Vaccines
cDNA sequences
(protein and cDNA sequences of eight novel Ornithobacterium ***rhinotracheale*** antigens and use in vaccines)

IT Antigens
RL: BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(protein and cDNA sequences of eight novel Ornithobacterium ***rhinotracheale*** antigens and use in vaccines)

IT Antibodies and Immunoglobulins
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(protein and cDNA sequences of eight novel Ornithobacterium ***rhinotracheale*** antigens and use in vaccines)

IT Avian encephalomyelitis virus
Avian reovirus
Avibacterium paragallinarum
Eggdrop syndrome-1976 virus
Eimeria
Escherichia coli
Fowlpox virus
Gallid herpesvirus
Gallid herpesvirus 1
Human herpesvirus 3
Infectious bronchitis virus
Meleagrid herpesvirus 1
Mycoplasma gallisepticum
Mycoplasma synoviae
Newcastle disease virus
Pasteurella multocida
Salmonella
Turkey ***rhinotracheitis*** virus
(vacccine aganist; protein and cDNA sequences of eight novel Ornithobacterium ***rhinotracheale*** antigens and use in vaccines)

IT 863068-64-8 863068-65-9 863068-66-0 863068-67-1 863068-68-2
863068-69-3 863068-70-6 863068-71-7 863068-72-8 863068-73-9
863068-74-0 863068-75-1 863068-76-2 863068-77-3 863068-78-4

863068-79-5
RL: PRP (Properties)
(unclaimed sequence; protein and cDNA sequences of eight novel Ornithobacterium ***rhinotracheale*** antigens and use in vaccines)

L7 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2005:607098 CAPLUS <<LOGINID::20091118>>
TI Combination vaccine for poultry
IN Jacobs, Antonius Arnoldus Christiaan; Van, Empel Paul Cornelius Maria; ***Nuijten, Petrus Johannes Maria***
PA Akzo Nobel N.V., Neth.; Van Empel, Paul Cornelius Maria
SO PCT Int. Appl.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005063284	A1	20050714	WO 2004-EP53623	20041221
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2550923	A1	20050714	CA 2004-2550923	20041221
	EP 1699483	A1	20060913	EP 2004-804958	20041221
	EP 1699483	B1	20090311		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
	BR 2004017880	A	20070427	BR 2004-17880	20041221
	JP 2007518717	T	20070712	JP 2006-546172	20041221
	AT 424844	T	20090315	AT 2004-804958	20041221
	ES 2322272	T3	20090618	ES 2004-804958	20041221
	US 20090053262	A1	20090226	US 2006-582315	20060608
PRAI	EP 2003-104954	A	20031223		
	WO 2004-EP53623	W	20041221		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
AB The present invention relates to a combination vaccine for the protection of poultry against Ornithobacterium ***rhinotracheale*** , to the use of a live ***over*** - ***attenuated*** Ornithobacterium ***rhinotracheale*** strain and a live attenuated poultry virus for the manufacturing of such a combination vaccine, to methods for the preparation of said combination vaccine and to vaccination kits for the immunization of poultry against Ornithobacterium ***rhinotracheale*** .
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
IN Jacobs, Antonius Arnoldus Christiaan; Van, Empel Paul Cornelius Maria; ***Nuijten, Petrus Johannes Maria***
AB The present invention relates to a combination vaccine for the protection of poultry against Ornithobacterium ***rhinotracheale*** , to the use of a live ***over*** - ***attenuated*** Ornithobacterium ***rhinotracheale*** strain and a live attenuated poultry virus for the manufacturing of such a combination vaccine, to methods for the preparation of said combination vaccine and to vaccination kits for the immunization of poultry against Ornithobacterium ***rhinotracheale*** .

L7 ANSWER 4 OF 7 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
DUPLICATE 2
AN 2005:554651 BIOSIS <<LOGINID::20091118>>
DN PREV200510340117
TI Successful selection of cross-protective vaccine candidates for Ornithobacterium ***rhinotracheale*** infection.
AU Schuijffel, D. F.; van Empel, P. C. M.; Pennings, A. M. M. A.; van Putten, J. P. M.; ***Nuijten, P. J. M.*** [Reprint Author]
CS Nobilon Int BV, Bacteriol R and D, POB 320,Exportstr 39B, NL-5830 AH

Boxmeer, Netherlands
Piet.Nuijten@Nobilonvaccines.com
SO Infection and Immunity, (OCT 2005) Vol. 73, No. 10, pp. 6812-6821.
CODEN: INFIBR. ISSN: 0019-9567.
DT Article
LA English
ED Entered STN: 7 Dec 2005
Last Updated on STN: 7 Dec 2005
AB Ornithobacterium ***rhinotracheale*** is a bacterial pathogen known for causing respiratory disease in poultry. In this study, we demonstrate for the first time that cross-protective immunity against different O. ***rhinotracheale*** serotypes can be induced by live vaccination. Sera from these live-vaccinated and cross-protected birds were used to identify new vaccine targets by screening an O. ***rhinotracheale*** expression library. Out of 20,000 screened plaques, a total of 30 cross-reactive clones were selected for further analysis. Western blot analysis and DNA sequencing identified eight different open reading frames. The genes encoding the eight cross-reactive antigens were amplified, cloned in an expression vector, and expressed in Escherichia coli. Purified recombinant proteins with a molecular mass ranging from 35.9 kDa to 62.9 kDa were mixed and tested as a subunit vaccine for (cross-) protection against challenge with homologous and heterologous O. ***rhinotracheale*** serotypes in chickens. Subunit vaccination resulted in the production of antibodies reactive to the recombinant proteins on Western blot, and this eight-valent vaccine conferred both homologous and heterologous protection against O. ***rhinotracheale*** challenge in chickens.
TI Successful selection of cross-protective vaccine candidates for Ornithobacterium ***rhinotracheale*** infection.
AU Schuijffel, D. F.; van Empel, P. C. M.; Pennings, A. M. M. A.; van Putten, J. P. M.; ***Nuijten, P. J. M.*** [Reprint Author]
AB Ornithobacterium ***rhinotracheale*** is a bacterial pathogen known for causing respiratory disease in poultry. In this study, we demonstrate for the first time that cross-protective immunity against different O. ***rhinotracheale*** serotypes can be induced by live vaccination. Sera from these live-vaccinated and cross-protected birds were used to identify new vaccine targets by screening an O. ***rhinotracheale*** expression library. Out of 20,000 screened plaques, a total of 30 cross-reactive clones were selected for further analysis. Western blot. . . 62.9 kDa were mixed and tested as a subunit vaccine for (cross-) protection against challenge with homologous and heterologous O. ***rhinotracheale*** serotypes in chickens. Subunit vaccination resulted in the production of antibodies reactive to the recombinant proteins on Western blot, and this eight-valent vaccine conferred both homologous and heterologous protection against O. ***rhinotracheale*** challenge in chickens.
ORGN . . .
Chordates, Nonhuman Vertebrates, Vertebrates
ORGN Classifier
Gram-Negative Aerobic Rods and Cocci 06500
Super Taxa
Eubacteria; Bacteria; Microorganisms
Organism Name
Ornithobacterium ***rhinotracheale*** (species): pathogen
Taxa Notes
Bacteria, Eubacteria, Microorganisms

L7 ANSWER 5 OF 7 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
DUPLICATE 3
AN 2005:316197 BIOSIS <<LOGINID::20091118>>
DN PREV200510106203
TI Passive immunization of immune-suppressed animals: Chicken antibodies protect against Ornithobacterium ***rhinotracheale*** infection.
AU Schuijffel, D. F.; Van Empel, P. C. M.; Pennings, A. M. M. A.; Van Putten, J. P. M.; ***Nuijten, P. J. M.*** [Reprint Author]
CS Nobilon Int BV, Bacteriol R and D, Exportstr 39B, NL-5830 AH Boxmeer, Netherlands
Piet.Nuijten@Nobilonvaccines.com
SO Vaccine, (MAY 16 2005) Vol. 23, No. 26, pp. 3404-3411.
CODEN: VACCDE. ISSN: 0264-410X.
DT Article
LA English

ED Entered STN: 17 Aug 2005
Last Updated on STN: 17 Aug 2005
AB Unravelling of the protective immunity acquired during a natural infection may contribute to vaccine development. To assess the role of antibody-mediated immunity in protection against Ornithobacterhan ***rhinotracheale*** infection in chickens, a novel experimental method was applied that combined immune depletion and passive transfer of immunity within the same host. Administration of cyclophosphamide (CY) to broiler chickens successfully suppressed B lymphocyte development, and therefore humoral immunity, as confirmed by histological and serological analysis. Challenge of CY-treated birds with O. ***rhinotracheale*** revealed a significantly higher pathology score in comparison to immune-competent birds that received the same bacterial challenge. Measurement of serum immunoglobulin levels of immune-competent birds revealed a positive correlation between IgA and/or IgG production and protection against infection. Passive transfer of O. ***rhinotrachealespecific*** antiserum to the immune-suppressed birds prior to pathogen challenge significantly decreased morbidity. This protective effect was not observed after administration of control sera containing similar concentrations of immunoglobulins. Together, these results provide firm evidence that chicken humoral immunity to O. ***rhinotracheale*** is a key component in protection against infection. Our data confirm that the applied immune depletion and reconstitution approach is an attractive tool to analyse the nature of the protective immune response. (c) 2005 Elsevier Ltd. All rights reserved.
TI Passive immunization of immune-suppressed animals: Chicken antibodies protect against Ornithobacterium ***rhinotracheale*** infection.
AU Schuijffel, D. F.; Van Empel, P. C. M.; Pennings, A. M. M. A.; Van Putten, J. P. M.; ***Nuijten, P. J. M.*** [Reprint Author]
AB. . . a natural infection may contribute to vaccine development. To assess the role of antibody- mediated immunity in protection against Ornithobacterhan ***rhinotracheale*** infection in chickens, a novel experimental method was applied that combined immune depletion and passive transfer of immunity within the. . . B lymphocyte development, and therefore humoral immunity, as confirmed by histological and serological analysis. Challenge of CY-treated birds with O. ***rhinotracheale*** revealed a significantly higher pathology score in comparison to immune-competent birds that received the same bacterial challenge. Measurement of serum. . . of immune-competent birds revealed a positive correlation between IgA and/or IgG production and protection against infection. Passive transfer of O. ***rhinotrachealespecific*** antiserum to the immune-suppressed birds prior to pathogen challenge significantly decreased morbidity. This protective effect was not observed after administration. . . of control sera containing similar concentrations of immunoglobulins. Together, these results provide firm evidence that chicken humoral immunity to O. ***rhinotracheale*** is a key component in protection against infection. Our data confirm that the applied immune depletion and reconstitution approach is. . .
IT . . .
Parts, Structures, & Systems of Organisms
serum: blood and lymphatics; B lymphocyte: immune system, blood and lymphatics
IT Diseases
Ornithobacterium ***rhinotracheale*** infection: bacterial disease, immunology
IT Chemicals & Biochemicals
IgG [immunoglobulin G]; IgA [immunoglobulin A]; cyclophosphamide: immunologic-drug
ORGN . . .
Chordates, Nonhuman Vertebrates, Vertebrates
ORGN Classifier
Gram-Negative Aerobic Rods and Cocci 06500
Super Taxa
Eubacteria; Bacteria; Microorganisms
Organism Name
Ornithobacterium ***rhinotracheale*** (species): pathogen
Taxa Notes
Bacteria, Eubacteria, Microorganisms

L7 ANSWER 6 OF 7 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
AN 2003:453878 BIOSIS <<LOGINID::20091118>>

DN PREV200300453878
TI The chicken humoral immune response is involved in protection against Ornithobacterium ***rhinotracheale*** infection.
AU Schuijffel, D. F. [Reprint Author]; ***Nuijten, P. J. M.*** [Reprint Author]; Pennings, A. M. M. A. [Reprint Author]; van Putten, J.; van Empel, P. C. M. [Reprint Author]
CS Bacteriology R and D, Intervet International BV, Wim de Korverstraat 35, 5830 AA, Boxmeer, Netherlands
SO FEMS Congress of European Microbiologists Abstract Book, (2003) No. 1, pp. 269-270. print.
Meeting Info.: 1st Federation of European Microbiological Societies (FEMS) Congress of European Microbiologists. Ljubljana, Slovenia. June 29-July 03, 2003. FEMS (Federation of European Microbiological Societies).
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 1 Oct 2003
Last Updated on STN: 1 Oct 2003
TI The chicken humoral immune response is involved in protection against Ornithobacterium ***rhinotracheale*** infection.
AU Schuijffel, D. F. [Reprint Author]; ***Nuijten, P. J. M.*** [Reprint Author]; Pennings, A. M. M. A. [Reprint Author]; van Putten, J.; van Empel, P. C. M.. . .
ORGN . . .
Chordates, Nonhuman Vertebrates, Vertebrates
ORGN Classifier
Gram-Negative Aerobic Rods and Cocci 06500
Super Taxa
Eubacteria; Bacteria; Microorganisms
Organism Name
Ornithobacterium ***rhinotracheale*** (species): pathogen
Taxa Notes
Bacteria, Eubacteria, Microorganisms

L7 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2002:391558 CAPLUS <<LOGINID::20091118>>
DN 136:384973
TI Salmonella vaccine
IN ***Nuijten, Petrus Johannes Maria*** ; Witvliet, Maarten Hendrik
PA Akzo Nobel N.V., Neth.
SO PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002040046	A1	20020523	WO 2001-EP13396	20011115
	W: AE, AG, AL, AU, BA, BB, BG, BR, BZ, CA, CN, CO, CR, CU, CZ, DM, DZ, EC, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, MZ, NO, NZ, PH, PL, RO, RU, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2429120	A1	20020523	CA 2001-2429120	20011115
	AU 2002017043	A	20020527	AU 2002-17043	20011115
	EP 1345621	A1	20030924	EP 2001-996389	20011115
	EP 1345621	B1	20081112		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	HU 2003002612	A2	20031128	HU 2003-2612	20011115
	HU 2003002612	A3	20041028		
	JP 2004513646	T	20040513	JP 2002-542418	20011115
	AT 413888	T	20081115	AT 2001-996389	20011115
	ES 2316492	T3	20090416	ES 2001-996389	20011115
	US 20040052802	A1	20040318	US 2003-432102	20030516
	US 7045122	B2	20060516		
PRAI	EP 2000-204022	A	20001116		
	EP 2000-204387	A	20001208		

WO 2001-EP13396 W 20011115
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
AB The present invention relates to live attenuated Salmonella strains comprising a first attenuating mutation, that are not capable of making functional RecA. The invention also relates to these bacteria for use in vaccines. Furthermore, the invention relates to vaccines based upon these bacteria, to the use of such bacteria in the manuf. of vaccines and to methods for the prepn. of such vaccines. The recA- Salmonella carries a heterologous antigen gene from a virus, bacterium, or parasite and can be used in vaccines for prevention of infection in poultry.
OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
IN ***Nuijten, Petrus Johannes Maria*** ; Witvliet, Maarten Hendrik
IT Avian encephalomyelitis virus
Avian reovirus
Avibacterium paragallinarum
Chicken anemia virus
Eimeria
Escherichia coli
Gallus domesticus
Human herpesvirus 3
Infectious bronchitis virus
Infectious bursal disease virus
Mycoplasma gallisepticum
Mycoplasma synoviae
Newcastle disease virus
Ornithobacterium ***rhinotracheale***
Pasteurella multocida
Poultry
Salmonella
Salmonella enterica enterica gallinarum
Salmonella enteritidis
Salmonella typhimurium
Turkey ***rhinotracheitis*** virus
Vaccines
(use of recA- Salmonella carrying a heterologous antigen gene in vaccines against infection in poultry)

=> s (over attenuat?) and rhinotrach?
L8 1 (OVER ATTENUAT?) AND RHINOTRACH?

=> d

L8 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2005:607098 CAPLUS <<LOGINID::20091118>>
TI Combination vaccine for poultry
IN Jacobs, Antonius Arnoldus Christiaan; Van, Empel Paul Cornelius Maria; Nuijten, Petrus Johannes Maria
PA Akzo Nobel N.V., Neth.; Van Empel, Paul Cornelius Maria
SO PCT Int. Appl.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005063284	A1	20050714	WO 2004-EP53623	20041221
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2550923	A1	20050714	CA 2004-2550923	20041221

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     EP 1699483           A1    20060913    EP 2004-804958         20041221
     EP 1699483           B1    20090311
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS
     BR 2004017880        A     20070427    BR 2004-17880          20041221
     JP 2007518717        T     20070712    JP 2006-546172         20041221
     AT 424844            T     20090315    AT 2004-804958         20041221
     ES 2322272           T3    20090618    ES 2004-804958         20041221
     US 20090053262       A1    20090226    US 2006-582315         20060608
PRAI EP 2003-104954       A     20031223
     WO 2004-EP53623      W     20041221
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
RE.CNT  4     THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT


=> s (over attenuat?)
L9         109 (OVER ATTENUAT?)

=> dup rem l9
PROCESSING COMPLETED FOR L9
L10          55 DUP REM L9 (54 DUPLICATES REMOVED)

=> d bib ab kwic

L10  ANSWER 1 OF 55     MEDLINE on STN
AN   2009340651     MEDLINE <<LOGINID::20091118>>
DN   PubMed ID: 19436730
TI   Reducing the activity and secretion of microbial antioxidants enhances the
     immunogenicity of BCG.
AU   Sadagopal Shanmugalakshmi; Braunstein Miriam; Hager Cynthia C; Wei Jie;
     Daniel Alexandria K; Bochan Markian R; Crozier Ian; Smith Nathaniel E;
     Gates Hiriam O; Barnett Louise; Van Kaer Luc; Price James O; Blackwell
     Timothy S; Kalams Spyros A; Kernodle Douglas S
CS   Department of Medicine, Vanderbilt University Medical Center, Nashville,
     Tennessee, USA.
NC   AI-51561 (United States NIAID NIH HHS)
     AI-54540 (United States NIAID NIH HHS)
     HL-68518 (United States NHLBI NIH HHS)
     P30 AI-54999 (United States NIAID NIH HHS)
     T32 AI-007474 (United States NIAID NIH HHS)
     U54 AI 057157 (United States NIAID NIH HHS)
SO   PloS one, (2009) Vol. 4, No. 5, pp. e5531.  Electronic Publication:
     2009-05-13.
     Journal code: 101285081. E-ISSN: 1932-6203.
     Report No.: NLM-PMC2677452.
CY   United States
DT   Journal; Article; (JOURNAL ARTICLE)
     (RESEARCH SUPPORT, N.I.H., EXTRAMURAL)
     (RESEARCH SUPPORT, NON-U.S. GOV'T)
LA   English
FS   Priority Journals
EM   200908
ED   Entered STN: 14 May 2009
     Last Updated on STN: 8 Aug 2009
     Entered Medline: 7 Aug 2009
AB   BACKGROUND: In early clinical studies, the live tuberculosis vaccine
     Mycobacterium bovis BCG exhibited 80% protective efficacy against
     pulmonary tuberculosis (TB).  Although BCG still exhibits reliable
     protection against TB meningitis and miliary TB in early childhood it has
     become less reliable in protecting against pulmonary TB.  During decades
     of in vitro cultivation BCG not only lost some genes due to deletions of
     regions of the chromosome but also underwent gene duplication and other
     mutations resulting in increased antioxidant production.
     METHODOLOGY/PRINCIPAL FINDINGS: To determine whether microbial
     antioxidants influence vaccine immunogenicity, we eliminated duplicated
     alleles encoding the oxidative stress sigma factor SigH in BCG Tice and
     reduced the activity and secretion of iron co-factored superoxide
     dismutase.  We then used assays of gene expression and flow cytometry with
     intracellular cytokine staining to compare BCG-specific immune responses
     in mice after vaccination with BCG Tice or the modified BCG vaccine.
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Compared to BCG, the modified vaccine induced greater IL-12p40, RANTES, and IL-21 mRNA in the spleens of mice at three days post-immunization, more cytokine-producing CD8+ lymphocytes at the peak of the primary immune response, and more IL-2-producing CD4+ lymphocytes during the memory phase. The modified vaccine also induced stronger secondary CD4+ lymphocyte responses and greater clearance of challenge bacilli. CONCLUSIONS/SIGNIFICANCE: We conclude that antioxidants produced by BCG suppress host immune responses. These findings challenge the hypothesis that the failure of extensively cultivated BCG vaccines to prevent pulmonary tuberculosis is due to ***over*** - ***attenuation*** and suggest instead a new model in which BCG evolved to produce more immunity-suppressing antioxidants. By targeting these antioxidants it may be possible to restore BCG's ability to protect against pulmonary TB.

AB . . . These findings challenge the hypothesis that the failure of extensively cultivated BCG vaccines to prevent pulmonary tuberculosis is due to ***over*** - ***attenuation*** and suggest instead a new model in which BCG evolved to produce more immunity-suppressing antioxidants. By targeting these antioxidants it. . .

=> s l10 and vaccin?
L11 34 L10 AND VACCIN?

=> s l11 and poultry
L12 2 L11 AND POULTRY

=> d 1-
YOU HAVE REQUESTED DATA FROM 2 ANSWERS - CONTINUE? Y/(N):y

L12 ANSWER 1 OF 2 CABA COPYRIGHT 2009 CABI on STN
AN 2007:245670 CABA <<LOGINID::20091118>>
DN 20073244690
TI Towards genetically manipulated IBV ***vaccines*** ; first steps using an infectious clone
AU Casais, R.; Dove, B.; Hodgson, T.; Evans, S.; Britton, P.; Cavanagh, D.; Heffels-Redmann, U. [EDITOR]; Kaleta, E. F. [EDITOR]
CS Institute for Animal Health, Compton Laboratory, RG20 7NN, UK. dave.cavanagh@bbsrc.ac.uk
SO IV. International symposium on avian corona- and pneumovirus infections, Rauischholzhausen, Germany, 20-23 June 2004, (2004) pp. 244-251. 19 ref. Publisher: VVB Laufersweiler Verlag. Wettenberg
Price: Book chapter; Conference paper .
Meeting Info.: IV. International symposium on avian corona- and pneumovirus infections, Rauischholzhausen, Germany, 20-23 June 2004.
ISBN: 3-89687-494-2
CY Germany, Federal Republic of
DT Journal
LA English
ED Entered STN: 7 Dec 2007
Last Updated on STN: 7 Dec 2007

L12 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2005:607098 CAPLUS <<LOGINID::20091118>>
TI Combination ***vaccine*** for ***poultry***
IN Jacobs, Antonius Arnoldus Christiaan; Van, Empel Paul Cornelius Maria; Nuijten, Petrus Johannes Maria
PA Akzo Nobel N.V., Neth.; Van Empel, Paul Cornelius Maria
SO PCT Int. Appl.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005063284	A1	20050714	WO 2004-EP53623	20041221

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

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         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
             RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
             MR, NE, SN, TD, TG
     CA 2550923           A1    20050714    CA 2004-2550923        20041221
     EP 1699483           A1    20060913    EP 2004-804958         20041221
     EP 1699483           B1    20090311
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS
     BR 2004017880        A     20070427    BR 2004-17880          20041221
     JP 2007518717        T     20070712    JP 2006-546172         20041221
     AT 424844            T     20090315    AT 2004-804958         20041221
     ES 2322272           T3    20090618    ES 2004-804958         20041221
     US 20090053262       A1    20090226    US 2006-582315         20060608
PRAI EP 2003-104954       A     20031223
     WO 2004-EP53623      W     20041221
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
RE.CNT  4     THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT


=> d l11 bib ab kwic 1-
YOU HAVE REQUESTED DATA FROM 34 ANSWERS - CONTINUE? Y/(N):y

L11  ANSWER 1 OF 34  BIOSIS  COPYRIGHT (c) 2009 The Thomson Corporation  on STN
AN   2009:537312  BIOSIS <<LOGINID::20091118>>
DN   PREV200900538415
TI   Age-dependent systemic antibody responses and immunisation-associated
     changes in mice orally and nasally immunised with Lactococcus lactis
     expressing a malaria parasite protein.
AU   Moorthy, S. A. V.; Yasawardena, S. G.; Ramasamy, R. [Reprint Author]
CS   Univ Brunei Darussalam, Inst Med, BE-1410 Gadong, Brunei
     ramasamy@im.ubd.edu.bn
SO   Vaccine, (AUG 6 2009) Vol. 27, No. 36, pp. 4947-4952.
     CODEN: VACCDE. ISSN: 0264-410X.
DT   Article
LA   English
ED   Entered STN: 16 Sep 2009
     Last Updated on STN: 16 Sep 2009
AB   Gram positive food-grade bacteria such as lactococci have significant
     advantages   ***over***     ***attenuated***   pathogens as
       ***vaccine***   delivery vehicles because of their inherently greater
     safety.  Plasmodium falciparum merozoite surface antigen 2 (MSA2) was
     expressed in recombinant Lactococcus lactis both intracellularly and
     covalently anchored to the peptidoglycan of the cell wall (MSA2cP).
     Balb/c mice of different ages were immunised with the MSA2cP expressing L.
     lactis in a combined oral and nasal immunisation procedure.  Serum IgG
     antibody responses to MSA2 were higher in young adult Balb/c mice compared
     to old mice and neonates.  The elicited serum IgG antibodies reacted with
     native MSA2 on the surface of P. falciparum merozoites in an
     immunofluorescence assay.  The serum IgG antibody isotypes in young adult
     mice were mainly IgG1, IgG2a and IgG2b, while IgG3 tended to be higher in
     old mice.  IgA antibodies to MSA2 were also produced in young mice.
     Enlarged mesenteric lymph nodes, and more prominent lymphoid tissue in the
     lamina propria of the ileum and lymphoid follicles in the spleen, were
     observed in mice fed L. lactis.  These findings are relevant for
     developing L lactis as a vector to deliver   ***vaccines***   in human
     populations. (C) 2009 Elsevier Ltd.  All rights reserved.
AB   Gram positive food-grade bacteria such as lactococci have significant
     advantages   ***over***     ***attenuated***   pathogens as
       ***vaccine***   delivery vehicles because of their inherently greater
     safety.  Plasmodium falciparum merozoite surface antigen 2 (MSA2) was
     expressed in recombinant Lactococcus.  .  .  were observed in mice fed L.
     lactis.  These findings are relevant for developing L lactis as a vector
     to deliver   ***vaccines***   in human populations. (C) 2009 Elsevier Ltd.
     All rights reserved.
IT   .  .  .
        transmission
        Malaria (MeSH)
IT   Chemicals & Biochemicals
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IgG1 [immunoglobulin G1]; IgG3; IgG2b; IgG2a; immunoglobulin G [IgG]: immunologic-drug; immunoglobulin A [IgA]: immunologic-drug; ***vaccine*** : immunologic-drug; merozoite surface antigen-2 [MSA2]: expression

L11 ANSWER 2 OF 34 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
AN 2009:362920 BIOSIS <<LOGINID::20091118>>
DN PREV200900364023
TI Reducing the Activity and Secretion of Microbial Antioxidants Enhances the Immunogenicity of BCG.
AU Sadagopal, Shanmugalakshmi [Reprint Author]; Braunstein, Miriam; Hager, Cynthia C.; Wei, Jie; Daniel, Alexandria K.; Bochan, Markian R.; Crozier, Ian; Smith, Nathaniel E.; Gates, Hiriam O.; Barnett, Louise; Van Kaer, Luc; Price, James O.; Blackwell, Timothy S.; Kalams, Spyros A.; Kernodle, Douglas S.
CS Vanderbilt Univ, Med Ctr, Dept Med, Nashville, TN 37235 USA
doug.kernodle@vanderbilt.edu
SO PLoS One, (MAY 13 2009) Vol. 4, No. 5, pp. Article No.: e5531.
ISSN: 1932-6203.
DT Article
LA English
ED Entered STN: 11 Jun 2009
Last Updated on STN: 11 Jun 2009
AB Background: In early clinical studies, the live tuberculosis ***vaccine*** Mycobacterium bovis BCG exhibited 80% protective efficacy against pulmonary tuberculosis (TB). Although BCG still exhibits reliable protection against TB meningitis and miliary TB in early childhood it has become less reliable in protecting against pulmonary TB. During decades of in vitro cultivation BCG not only lost some genes due to deletions of regions of the chromosome but also underwent gene duplication and other mutations resulting in increased antioxidant production.Methodology/Principal Findings: To determine whether microbial antioxidants influence ***vaccine*** immunogenicity, we eliminated duplicated alleles encoding the oxidative stress sigma factor SigH in BCG Tice and reduced the activity and secretion of iron co-factored superoxide dismutase. We then used assays of gene expression and flow cytometry with intracellular cytokine staining to compare BCG-specific immune responses in mice after ***vaccination*** with BCG Tice or the modified BCG ***vaccine*** . Compared to BCG, the modified ***vaccine*** induced greater IL-12p40, RANTES, and IL-21 mRNA in the spleens of mice at three days post-immunization, more cytokine-producing CD8+ lymphocytes at the peak of the primary immune response, and more IL-2-producing CD4+ lymphocytes during the memory phase. The modified ***vaccine*** also induced stronger secondary CD4+ lymphocyte responses and greater clearance of challenge bacilli.Conclusions/Significance: We conclude that antioxidants produced by BCG suppress host immune responses. These findings challenge the hypothesis that the failure of extensively cultivated BCG ***vaccines*** to prevent pulmonary tuberculosis is due to ***over*** - ***attenuation*** and suggest instead a new model in which BCG evolved to produce more immunity-suppressing antioxidants. By targeting these antioxidants it may be possible to restore BCG's ability to protect against pulmonary TB.
AB Background: In early clinical studies, the live tuberculosis ***vaccine*** Mycobacterium bovis BCG exhibited 80% protective efficacy against pulmonary tuberculosis (TB). Although BCG still exhibits reliable protection against TB. . . but also underwent gene duplication and other mutations resulting in increased antioxidant production.Methodology/Principal Findings: To determine whether microbial antioxidants influence ***vaccine*** immunogenicity, we eliminated duplicated alleles encoding the oxidative stress sigma factor SigH in BCG Tice and reduced the activity and. . . used assays of gene expression and flow cytometry with intracellular cytokine staining to compare BCG-specific immune responses in mice after ***vaccination*** with BCG Tice or the modified BCG ***vaccine*** . Compared to BCG, the modified ***vaccine*** induced greater IL-12p40, RANTES, and IL-21 mRNA in the spleens of mice at three days post-immunization, more cytokine-producing CD8+ lymphocytes at the peak of the primary immune response, and more IL-2-producing CD4+ lymphocytes during the memory phase. The modified ***vaccine*** also induced stronger secondary CD4+ lymphocyte responses and greater clearance of challenge bacilli.Conclusions/Significance: We conclude that antioxidants produced by BCG suppress host immune responses.

These findings challenge the hypothesis that the failure of extensively cultivated BCG ***vaccines*** to prevent pulmonary tuberculosis is due to ***over*** - ***attenuation*** and suggest instead a new model in which BCG evolved to produce more immunity-suppressing antioxidants. By targeting these antioxidants it. . .

IT . . .
mRNA; interleukin-21 [IL-21]; microbial antioxidants: activity, secretion; sigma factor SigH; iron co-factored superoxide dismutase: activity, secretion; BCG Tice: immunologic-drug, immunostimulant-drug, ***vaccine***

IT . . .
and cytology techniques; immunostaining: laboratory techniques, immunologic techniques; immunization: therapeutic and prophylactic techniques

IT Miscellaneous Descriptors
immune response; oxidative stress; ***vaccine*** immunogenicity

L11 ANSWER 3 OF 34 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
AN 2009:96032 BIOSIS <<LOGINID::20091118>>
DN PREV200900096032
TI Evaluation of St. Louis encephalitis virus/dengue virus type 4 antigenic chimeric viruses in mice and rhesus monkeys.
AU Blaney, Joseph E. Jr.; Speicher, James; Hanson, Christopher T.; Sathe, Neeraj S.; Whitehead, Stephen S.; Murphy, Brian R.; Pletnev, Alexander G. [Reprint Author]
CS NIAID, Infect Dis Lab, NIH, 33 N Dr,Room 3W10A, Bethesda, MD 20892 USA
apletnev@niaid.nih.gov
SO Vaccine, (AUG 5 2008) Vol. 26, No. 33, pp. 4150-4159.
CODEN: VACCDE. ISSN: 0264-410X.
DT Article
LA English
ED Entered STN: 28 Jan 2009
Last Updated on STN: 28 Jan 2009
AB To develop a live attenuated virus ***vaccine*** against St. Louis encephalitis (SLE) virus, two antigenic chimeric viruses were generated by replacing the membrane precursor and envelope protein genes of dengue virus type 4 (DEN4) with those from SLE with or without a 30 nucleotide deletion in the DEN4 3' untranslated region of the chimeric genome. Chimeric viruses were compared with parental wild-type SLE for level of neurovirulence and neuroinvasiveness in mice and for safety, immunogenicity, and protective efficacy in rhesus monkeys. The resulting viruses, SLE/DEN4 and SLE/DEN4 Delta 30, had greatly reduced neuroinvasiveness in immunodeficient mice but retained neurovirulence in suckling mice. Chimerization of SLE with DEN4 resulted in only moderate restriction in replication in rhesus monkeys, whereas the presence of the Delta 30 mutation led to ***over*** - ***attenuation*** . Introduction of previously described attenuating paired charge-to-alanine mutations in the DEN4 NS5 protein of SLE/DEN4 reduced neurovirulence in mice and replication in rhesus monkeys. Two modified SLE/DEN4 viruses, SLE/DEN4-436,437 clone 41 and SLE/DEN4-654,655 clone 46, have significantly reduced neurovirulence in mice and conferred protective immunity in monkeys against SLE challenge. These viruses may be considered for use as SLE ***vaccine*** candidates and for use as diagnostic reagents with reduced virulence. Published by Elsevier Ltd.
AB To develop a live attenuated virus ***vaccine*** against St. Louis encephalitis (SLE) virus, two antigenic chimeric viruses were generated by replacing the membrane precursor and envelope protein. . . resulted in only moderate restriction in replication in rhesus monkeys, whereas the presence of the Delta 30 mutation led to ***over*** - ***attenuation*** . Introduction of previously described attenuating paired charge-to-alanine mutations in the DEN4 NS5 protein of SLE/DEN4 reduced neurovirulence in mice and. . . in mice and conferred protective immunity in monkeys against SLE challenge. These viruses may be considered for use as SLE ***vaccine*** candidates and for use as diagnostic reagents with reduced virulence. Published by Elsevier Ltd.
IT . . .
IT Diseases
dengue: viral disease, infectious disease
Dengue (MeSH)
IT Chemicals & Biochemicals
DNA; NS5 protein: mutation; St. Louis encephalitis virus

vaccine : immunologic-drug, immunostimulant-drug; dengue virus
vaccine : immunologic-drug, immunostimulant-drug

L11 ANSWER 4 OF 34 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
AN 2008:410653 BIOSIS <<LOGINID::20091118>>
DN PREV200800410652
TI Lipopolysaccharide: a tool and target in enterobacterial ***vaccine*** development.
AU Nagy, Gabor [Reprint Author]; Pal, Tibor
CS Univ Pecs, Dept Med Microbiol and Immunol, Szigeti Ut 12, H-7624 Pecs, Hungary
gabor.nagy@aok.pte.hu
SO Biological Chemistry, (MAY 2008) Vol. 389, No. 5, pp. 513-520.
ISSN: 1431-6730.
DT Article
LA English
ED Entered STN: 31 Jul 2008
Last Updated on STN: 31 Jul 2008
AB Lipopolysaccharide (LIPS) is an essential component of Gram-negative bacteria. While mutants exhibiting truncated LPS molecules are usually ***over*** - ***attenuated*** , alternative approaches that affect the extent or timing of LPS expression, as well as its modification may establish the optimal balance for a live ***vaccine*** strain of sufficient attenuation and retained immunogenicity. On the other hand, a specific immune response to LIPS molecules in itself is capable of conferring protective immunity to certain enterobacterial pathogens. Therefore, purified LIPS derivatives could be used as parenteral ***vaccines*** . This review summarizes various LPS-based ***vaccination*** strategies, as well as approaches that utilize LIPS mutants as whole-cell ***vaccines*** .
TI Lipopolysaccharide: a tool and target in enterobacterial ***vaccine*** development.
AB Lipopolysaccharide (LIPS) is an essential component of Gram-negative bacteria. While mutants exhibiting truncated LPS molecules are usually ***over*** - ***attenuated*** , alternative approaches that affect the extent or timing of LPS expression, as well as its modification may establish the optimal balance for a live ***vaccine*** strain of sufficient attenuation and retained immunogenicity. On the other hand, a specific immune response to LIPS molecules in itself is capable of conferring protective immunity to certain enterobacterial pathogens. Therefore, purified LIPS derivatives could be used as parenteral ***vaccines*** . This review summarizes various LPS-based ***vaccination*** strategies, as well as approaches that utilize LIPS mutants as whole-cell ***vaccines*** .
IT . . .
prevention and control
IT Diseases
Salmonell gastroenteritis: digestive system disease, bacterial disease, prevention and control
IT Chemicals & Biochemicals
lipopolysaccharide-based ***vaccines*** : immunologic-drug, immunostimulant-drug, ***vaccine***
IT Miscellaneous Descriptors
protective immunity; ***vaccine*** development; immunogenicity

L11 ANSWER 5 OF 34 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
AN 2004:22475 BIOSIS <<LOGINID::20091118>>
DN PREV200400009847
TI The in vitro evolution of BCG ***vaccines*** .
AU Mostowy, Serge; Tsolaki, Anthony G.; Small, Peter M.; Behr, Marcel A. [Reprint Author]
CS Division of Infectious Diseases and Medical Microbiology, Montreal General Hospital, 1650 Cedar Avenue, A5-156, Montreal, Que., H3G 1A4, Canada
marcel.behr@mcgill.ca
SO Vaccine, (1 October 2003) Vol. 21, No. 27-30, pp. 4270-4274. print.
ISSN: 0264-410X (ISSN print).
DT Article
LA English
ED Entered STN: 24 Dec 2003
Last Updated on STN: 24 Dec 2003
AB The bacillus Calmette-Geurin (BCG) family of ***vaccines*** currently

implemented to prevent tuberculosis (TB) consist of clonal bacterial strains independently shaped by nearly a half-century of evolution. Derived from virulent Mycobacterium bovis, daughter strains of BCG were additionally passaged under the same laboratory conditions that resulted in its original attenuation. Genomic loss of the RD1 region has been demonstrated to coincide with attenuation from virulence, while deletions occurring after the loss of RD1 are speculated to be responsible for BCG's ***over*** - ***attenuation*** . To provide a more complete description of their total genomic variation, the genomic content of BCG strains are investigated by Affymetrix GeneChipTM. Because clinical isolates of M. tuberculosis have previously been characterized via GeneChipTM interrogation, analysis permits the comparison of in vivo versus in vitro evolution of M. tuberculosis complex subspecies. The contrast between the two modes of evolution are discussed in its relevance towards TB pathogenicity.

TI The in vitro evolution of BCG ***vaccines*** .

AB The bacillus Calmette-Geurin (BCG) family of ***vaccines*** currently implemented to prevent tuberculosis (TB) consist of clonal bacterial strains independently shaped by nearly a half-century of evolution. Derived. . . coincide with attenuation from virulence, while deletions occurring after the loss of RD1 are speculated to be responsible for BCG's ***over*** - ***attenuation*** . To provide a more complete description of their total genomic variation, the genomic content of BCG strains are investigated by. . .

IT . . .
Immune System (Chemical Coordination and Homeostasis); Infection; Pharmacology

IT Diseases
tuberculosis: bacterial disease
Tuberculosis (MeSH)

IT Chemicals & Biochemicals
bacillus Calmette-Geurin ***vaccine*** : immunologic-drug, immunostimulant-drug, in-vitro evolution

L11 ANSWER 6 OF 34 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN

AN 2003:457997 BIOSIS <<LOGINID::20091118>>

DN PREV200300457997

TI Evaluation of recombinant respiratory syncytial virus gene deletion mutants in African green monkeys for their potential as live attenuated ***vaccine*** candidates.

AU Jin, Hong [Reprint Author]; Cheng, Xing; Traina-Dorge, Vicki L.; Park, Hyun Jung; Zhou, Helen; Soike, Ken; Kemble, George

CS MedImmune Vaccines Inc., 297 North Bernardo Avenue, Mountain View, CA, 94043, USA
jinh@medimmune.com

SO Vaccine, (8 September 2003) Vol. 21, No. 25-26, pp. 3647-3652. print.
ISSN: 0264-410X (ISSN print).

DT Article

LA English

ED Entered STN: 8 Oct 2003
Last Updated on STN: 8 Oct 2003

AB Towards the goal of developing live attenuated respiratory syncytial virus (RSV) ***vaccines*** to prevent severe respiratory tract infections caused by respiratory syncytial virus, recombinant RSV containing a deletion of single or multiple NS1, NS2, SH and M2-2 genes have been generated. In this study, recombinants, rA2DELTAM2-2, rA2DELTANS2, rA2DELTANS1NS2, rA2DELTASHNS2, rA2DELTAM2-2NS2 were evaluated in African green monkeys (AGMs) for their infectivity, immunogenicity and protection against wild type (wt) RSV challenge. Replication of rA2DELTANS2 and rA2DELTASHNS2 was not attenuated in either the upper or the lower respiratory tracts of AGMs. On the other hands, rA2DELTANS1NS2 was ***over*** - ***attenuated*** ; it did not replicate in the respiratory tracts of the infected monkeys and did not provide sufficient protection against wild type RSV challenge. rA2DELTAM2-2NS2 was slightly more attenuated than rA2DELTAM2-2 and provided partial protection against wt RSV challenge. rA2DELTAM2-2, and possibly rA2DELTAM2-2NS2, exhibited the attenuated but protective phenotypes in the monkeys that could be further evaluated as potential live attenuated RSV ***vaccine*** candidates in the clinical studies.

TI Evaluation of recombinant respiratory syncytial virus gene deletion mutants in African green monkeys for their potential as live attenuated

vaccine candidates.

AB Towards the goal of developing live attenuated respiratory syncytial virus (RSV) ***vaccines*** to prevent severe respiratory tract infections caused by respiratory syncytial virus, recombinant RSV containing a deletion of single or multiple. . . was not attenuated in either the upper or the lower respiratory tracts of AGMs. On the other hands, rA2DELTANS1NS2 was ***over*** - ***attenuated*** ; it did not replicate in the respiratory tracts of the infected monkeys and did not provide sufficient protection against wild. . . rA2DELTAM2-2NS2, exhibited the attenuated but protective phenotypes in the monkeys that could be further evaluated as potential live attenuated RSV ***vaccine*** candidates in the clinical studies.

IT . . .

Diseases

respiratory syncytial virus infection: respiratory system disease, viral disease

Respiratory Syncytial Virus Infections (MeSH)

IT Chemicals & Biochemicals

live attenuated ***vaccine*** : immunologic-drug, immunostimulant-drug, ***vaccine***

L11 ANSWER 7 OF 34 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN

AN 1989:160379 BIOSIS <<LOGINID::20091118>>

DN PREV198987082480; BA87:82480

TI LABORATORY MARKERS FOR OVERATTENUATION OF MUMPS ***VACCINE*** VIRUS.

AU BORISKIN YU S [Reprint author]; KAPTSOVA T I; LOTTE V D; SKVORTSOVA O I; ORVELL C

CS INST VIRAL PREPARATIONS, MOSCOW 109088, USSR

SO Vaccine, (1988) Vol. 6, No. 6, pp. 483-488.
CODEN: VACCDE. ISSN: 0264-410X.

DT Article

FS BA

LA ENGLISH

ED Entered STN: 25 Mar 1989
Last Updated on STN: 25 Mar 1989

AB The properties of mumps ***vaccine*** virus (Leningrad-3 strain) gradually changed upon passaging in quail embryo fibroblasts, the substrate normally used for mumps ***vaccine*** production in the USSR. Alterations were extremely noticeable in the ***over*** - ***attenuated*** (38th passage) virus variant, and involved (a) poor, if any, antibody response in guinea-pigs, (b) turbid plaque formation, (c) lack of expression in cell culture of fusion protein and reduced expression of polymerase protein, and (d) enrichment by abnormally small, fusion-protein-deficient virus paticles. Two other laboratory strains exhibited a similar trend to ***over*** - ***attenuation*** , though after variable passage numbers. Due to a good inter-correlation, every test (namely, inoculation of guinea-pigs, plaque assay, protein analysis, or immune electron microscopy) is indicative of mumps ***vaccine*** ***over*** - ***attenuation*** and hence might be valuable in seed virus quality control.

TI LABORATORY MARKERS FOR OVERATTENUATION OF MUMPS ***VACCINE*** VIRUS.

AB The properties of mumps ***vaccine*** virus (Leningrad-3 strain) gradually changed upon passaging in quail embryo fibroblasts, the substrate normally used for mumps ***vaccine*** production in the USSR. Alterations were extremely noticeable in the ***over*** - ***attenuated*** (38th passage) virus variant, and involved (a) poor, if any, antibody response in guinea-pigs, (b) turbid plaque formation, (c) lack. . . polymerase protein, and (d) enrichment by abnormally small, fusion-protein-deficient virus paticles. Two other laboratory strains exhibited a similar trend to ***over*** - ***attenuation*** , though after variable passage numbers. Due to a good inter-correlation, every test (namely, inoculation of guinea-pigs, plaque assay, protein analysis, or immune electron microscopy) is indicative of mumps ***vaccine*** ***over*** - ***attenuation*** and hence might be valuable in seed virus quality control.

L11 ANSWER 8 OF 34 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN

AN 1984:2626 BIOSIS <<LOGINID::20091118>>

DN PREV198426002626; BR26:2626

TI DEVELOPMENT OF STABLE HIGHLY IMMUNOGENIC MUTANTS OF SALMONELLA WITH 2 INDEPENDENT ATTENUATING MARKERS AS A POTENTIAL LIVE ***VACCINE*** AND

APPLICATION OF METHODS FOR SHIGELLA AND OTHER BACTERIA.
AU LINDE K [Reprint author]
CS INST FUER MED MIKROBIOL DER KMU, LIEBIGSTR 24, 7010 LEIPZIG, DR GER
SO Dev. Biol. Stand., (1983) pp. P15-28. INTERNATIONAL ASSOCIATION OF BIOLOGICAL STANDARDIZATION. DEVELOPMENTS IN BIOLOGICAL STANDARDIZATION, VOL. 53. ENTERIC INFECTIONS IN MAN AND ANIMALS: STANDARDIZATION OF IMMUNOLOGICAL PROCEDURES; PROCEEDINGS OF A SYMPOSIUM, DUBLIN, IRELAND, SEPT. 6-8, 1982. XI+352P. S. KARGER: BASEL, SWITZERLAND; NEW YORK, N.Y., USA. ILLUS. PAPER.
Publisher: Series: Developments in Biological Standardization.
CODEN: DVBSA3. ISSN: 0301-5149. ISBN: 3-8055-3714-X.
DT Book
Conference; (Meeting)
FS BR
LA ENGLISH
TI DEVELOPMENT OF STABLE HIGHLY IMMUNOGENIC MUTANTS OF SALMONELLA WITH 2 INDEPENDENT ATTENUATING MARKERS AS A POTENTIAL LIVE ***VACCINE*** AND APPLICATION OF METHODS FOR SHIGELLA AND OTHER BACTERIA.
IT Miscellaneous Descriptors
PASTEURELLA MICE ***OVER*** ***ATTENUATION*** LEAKY MUTANTS STANDARDIZATION

L11 ANSWER 9 OF 34 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
AN 1979:188230 BIOSIS <<LOGINID::20091118>>
DN PREV197967068230; BA67:68230
TI NONPROTECTIVE AND TEMPERATURE SENSITIVE VARIANTS OF MAREKS DISEASE ***VACCINE*** VIRUSES.
AU WITTER R L [Reprint author]; OFFENBECKER L
CS REG POULT RES LAB, US FED RES, SCI EDUC ADM, 3606 E MOUNT HOPE RD, EAST LANSING, MICH 48823, USA
SO Journal of the National Cancer Institute, (1979) Vol. 62, No. 1, pp. 143-152.
DT Article
FS BA
LA ENGLISH
AB To elucidate mechanisms of ***vaccinal*** immunity in Marek's disease (MD), 2 nonprotective variants of MC ***vaccine*** viruses were compared with their counterpart protective viruses. The variant viruses were 200D, an MD virus stock passaged over 200 times in duck embryo fibroblast cultures, and HVT/hub, a stock of turkey herpesvirus passed over 70 times in chicken embryo fibroblast cultures. At doses up to 1.4 .times. 105 plaque-forming units, the viruses were partly (HVT/hub) or totally (200D) deficient in their abilities to protect chickens against MD. They were partly (HVT/hub) or totally (200D) deficient in their abilities to replicate in vivo as measured by virus reisolation and antibody assays; both viruses replicated well in vitro. Attempts were unseccessful to implicate host range mutation, temperature sensitivity or autointerference as the basis for the defective in vivo replication. The variant viruses were antigenically similar to their counterpart protective ***vaccine*** viruses except that 200D lacked the A-antigen. The 200D (but not the HVT/hub) variant virus was identified as a temperature-sensitive (ts) mutant characterized by 38.degree./41.degree. C replication, plating efficiencies of greater than 103 and a high reversion frequency. These findings not only caution against the danger of ***over*** - ***attenuation*** of MD ***vaccine*** viruses with loss of immunizing potential but also identify a unique ts mutant of MD virus potentially useful as a tool for further studies.
TI NONPROTECTIVE AND TEMPERATURE SENSITIVE VARIANTS OF MAREKS DISEASE ***VACCINE*** VIRUSES.
AB To elucidate mechanisms of ***vaccinal*** immunity in Marek's disease (MD), 2 nonprotective variants of MC ***vaccine*** viruses were compared with their counterpart protective viruses. The variant viruses were 200D, an MD virus stock passaged over 200. . . autointerference as the basis for the defective in vivo replication. The variant viruses were antigenically similar to their counterpart protective ***vaccine*** viruses except that 200D lacked the A-antigen. The 200D (but not the HVT/hub) variant virus was identified as a temperature-sensitive. . . plating efficiencies of greater than 103 and a high reversion frequency. These findings not only caution against the danger of ***over*** - ***attenuation*** of MD ***vaccine*** viruses with loss of immunizing potential but also identify a unique ts mutant of MD virus

potentially useful as a. . .
IT Miscellaneous Descriptors
200-D VARIANT HERPESVIRUS OF TURKEYS HVT-HUB VARIANT DUCK EMBRYO FIBROBLAST CHICKEN EMBRYO FIBROBLAST ***OVER*** ***ATTENUATION***

L11 ANSWER 10 OF 34 CABA COPYRIGHT 2009 CABI on STN
AN 2007:245670 CABA <<LOGINID::20091118>>
DN 20073244690
TI Towards genetically manipulated IBV ***vaccines*** ; first steps using an infectious clone
AU Casais, R.; Dove, B.; Hodgson, T.; Evans, S.; Britton, P.; Cavanagh, D.; Heffels-Redmann, U. [EDITOR]; Kaleta, E. F. [EDITOR]
CS Institute for Animal Health, Compton Laboratory, RG20 7NN, UK. dave.cavanagh@bbsrc.ac.uk
SO IV. International symposium on avian corona- and pneumovirus infections, Rauischholzhausen, Germany, 20-23 June 2004, (2004) pp. 244-251. 19 ref.
Publisher: VVB Laufersweiler Verlag. Wettenberg
Price: Book chapter; Conference paper .
Meeting Info.: IV. International symposium on avian corona- and pneumovirus infections, Rauischholzhausen, Germany, 20-23 June 2004.
ISBN: 3-89687-494-2
CY Germany, Federal Republic of
DT Journal
LA English
ED Entered STN: 7 Dec 2007
Last Updated on STN: 7 Dec 2007
AB It is possible that replacing the S gene of a ***vaccinal*** strain with that from a heterologous strain would produce a ***vaccine*** able to induce protective immunity against the heterologous strain. To investigate the feasibility of this approach we have replaced the spike (S) protein gene of our cloned Beaudette strain (non-pathogenic in chickens) with that from the Massachusetts M41 strain (pathogenic in chickens) to produce recombinant IBV (rIBV) BeauR-M41 (S). We have studied the pathogenicity of the two parental strains and the rIBV in chickens by quantifying snicking, nasal discharge, rales, and watery eyes, plus tracheal ciliary activity and recovery of challenge virus. By these criteria the rIBV BeauR-M41(S) was non-pathogenic, like Beaudette. This showed that there were differences between Beaudette and M41 in genes other than S that were responsible for its attenuated phenotype. The non-pathogenic nature of the rIBV was good in the context of ***vaccine*** development by this approach. Surprisingly Beaudette, usually considered to ***over*** - ***attenuated*** , as well as BeauR-M41(S) and M41, induced protection against M41 as assessed by nasal discharge and recovery of challenge virus. With regard to three other criteria (snicking, ciliostasis, and rales), BeauR-M41 (S) induced greater protection with 77% (7/9) of chicks protected, as assessed by ciliostasis, than Beau-R (11% (1/9)) but less than M41 (100%). These results are promising for the prospects of S gene exchange for IBV ***vaccine*** development. The poorer induction of protection by Beau-R against M41 may be related to the fact that the ectodomain of the spike protein of Beau-R differs from that of M41 by 4.1%; a small number of epitopes on the S protein may play a disproportionate role in the induction of immunity.
TI Towards genetically manipulated IBV ***vaccines*** ; first steps using an infectious clone.
AB It is possible that replacing the S gene of a ***vaccinal*** strain with that from a heterologous strain would produce a ***vaccine*** able to induce protective immunity against the heterologous strain. To investigate the feasibility of this approach we have replaced the. . . S that were responsible for its attenuated phenotype. The non-pathogenic nature of the rIBV was good in the context of ***vaccine*** development by this approach. Surprisingly Beaudette, usually considered to ***over*** - ***attenuated*** , as well as BeauR-M41(S) and M41, induced protection against M41 as assessed by nasal discharge and recovery of challenge virus.. . . (11% (1/9)) but less than M41 (100%). These results are promising for the prospects of S gene exchange for IBV ***vaccine*** development. The poorer induction of protection by Beau-R against M41 may be related to the fact that the ectodomain of. . .
CT bronchitis; genetic engineering; immunization; pathogenicity; poultry; recombinant ***vaccines*** ; recombination; strains; ***vaccination*** ; ***vaccine*** development

L11 ANSWER 11 OF 34 CABA COPYRIGHT 2009 CABI on STN
AN 2007:195416 CABA <<LOGINID::20091118>>
DN 20073195055
TI ***Vaccine*** candidates for dengue virus type 1 (DEN1) generated by replacement of the structural genes of rDEN4 and rDEN4[delta]30 with those of DEN1
AU Blaney, J. E., Jr.; Sathe, N. S.; Hanson, C. T.; Firestone, C. Y.; Murphy, B. R.; Whitehead, S. S.
CS Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, 20892, USA. jblaney@niaid.nih.gov; sathen@niaid.nih.gov; chanson@niaid.nih.gov; cfirestone@niaid.nih.gov; bmurphy@niaid.nih.gov; swhitehead@niaid.nih.gov
SO Virology Journal, (2007) Vol. 4, No. 23, pp. (28 February 2007). 33 ref.
Publisher: BioMed Central Ltd. London
ISSN: 1743-422x
URL: http://www.virologyj.com/content/pdf/1743-422X-4-23.pdf
CY United Kingdom
DT Journal
LA English
ED Entered STN: 5 Oct 2007
Last Updated on STN: 5 Oct 2007
AB Background: Antigenic chimeric viruses have previously been generated in which the structural genes of recombinant dengue virus type 4 (rDEN4) have been replaced with those derived from DEN2 or DEN3. Two ***vaccine*** candidates were identified, rDEN2/4[delta]30(ME) and rDEN3/4[delta]30(ME), which contain the membrane (M) precursor and envelope (E) genes of DEN2 and DEN3, respectively, and a 30 nucleotide deletion ([delta]30) in the 3[prime] untranslated region of the DEN4 backbone. Based on the promising preclinical phenotypes of these viruses and the safety and immunogenicity of rDEN2/4[delta]30(ME) in humans, we now describe the generation of a panel of four antigenic chimeric DEN4 viruses using either the capsid (C), M, and E (CME) or ME structural genes of DEN1 Puerto Rico/94 strain. Results: Four antigenic chimeric viruses were generated and found to replicate efficiently in Vero cells: rDEN1/4(CME), rDEN1/4[delta]30(CME), rDEN1/4(ME), and rDEN1/4[delta]30(ME). With the exception of rDEN1/4(ME), each chimeric virus was significantly attenuated in a SCID-HuH-7 mouse xenograft model with a 25-fold or greater reduction in replication compared to wild type DEN1. In rhesus monkeys, only chimeric viruses with the [delta]30 mutation appeared to be attenuated as measured by duration and magnitude of viraemia. rDEN1/4[delta]30(CME) appeared ***over*** - ***attenuated*** since it failed to induce detectable neutralizing antibody and did not confer protection from wild type DEN1 challenge. In contrast, rDEN1/4[delta]30(ME) induced 66% seroconversion and protection from DEN1 challenge. Presence of the [delta]30 mutation conferred a significant restriction in mosquito infectivity upon rDEN1/4[delta]30(ME) which was shown to be non-infectious for Aedes aegypti fed an infectious bloodmeal. Conclusion: The attenuation phenotype in SCID-HuH-7 mice, rhesus monkeys, and mosquitoes and the protective immunity observed in rhesus monkeys suggest that rDEN1/4[delta]30(ME) should be considered for evaluation in a clinical trial.
TI ***Vaccine*** candidates for dengue virus type 1 (DEN1) generated by replacement of the structural genes of rDEN4 and rDEN4[delta]30 with those. . .
AB . . . structural genes of recombinant dengue virus type 4 (rDEN4) have been replaced with those derived from DEN2 or DEN3. Two ***vaccine*** candidates were identified, rDEN2/4[delta]30(ME) and rDEN3/4[delta]30(ME), which contain the membrane (M) precursor and envelope (E) genes of DEN2 and DEN3,. . . chimeric viruses with the [delta]30 mutation appeared to be attenuated as measured by duration and magnitude of viraemia. rDEN1/4[delta]30(CME) appeared ***over*** - ***attenuated*** since it failed to induce detectable neutralizing antibody and did not confer protection from wild type DEN1 challenge. In contrast,. . .
CT candidate ***vaccines*** ; clinical trials; dengue; genes; human diseases; immunity; infectivity; neutralization; neutralizing antibodies; phenotypes; precursors; safety; seroconversion; ***vaccine*** development; ***vaccines***

L11 ANSWER 12 OF 34 CABA COPYRIGHT 2009 CABI on STN
AN 92:152673 CABA <<LOGINID::20091118>>
DN 19922093000
TI Use of single-gene reassortant viruses to study the role of avian

influenza A virus genes in attenuation of wild-type human influenza A virus for squirrel monkeys and adult human volunteers

AU Clements, M. L.; Subbarao, E. K.; Fries, L. F.; Karron, R. A.; London, W. T.; Murphy, B. R.

CS Cent. Immunization Res. & Div. Vaccine Scis, Dept Internat. Hlth, Johns Hopkins Univ. Sch. Hyg. & Publ Hlth, Baltimore, MD 21205, USA.

SO Journal of Clinical Microbiology, (1992) Vol. 30, No. 3, pp. 655-662.
ISSN: 0095-1137

DT Journal

LA English

ED Entered STN: 1992
Last Updated on STN: 1992

AB Gene reassortant viruses as live influenza ***vaccines*** provide the incidental benefit of an influenza virus genetic analysis. Initially, these were prepared by the transfer of temperature-sensitive or host-range mutations to contemporary epidemic strains. Murphy's group has latterly concentrated on the reassortment of avian virus genes with those of human viruses and, since all genes contribute something to virulence, and since avian viruses have very low human infectivity, these reassortants tend to be attenuated. Which of the non-surface avian genes are most effective in specifying attenuation? This paper studies the question; for the assessment of virulence, squirrel monkeys were infected intratracheally and volunteers intranasally. The virulent human parent was A/Los Angeles/2/87(H3N2) and the avirulent avian parent A/mallard/NY/6750/78(H2N2). Mixed infection and back-crossing produced the following genotypes: (1) Los Angeles HA and NA and avian PA, PB1, PB2, NP, M and NS; (2)-(7) Los Angeles virus in which 1 only of the internal genes has been replaced by 1 of the internal avian genes. Genotypes were confirmed by PAGE and the single gene reassortants' (SGRs) polymerase genes were sequenced by the dideoxynucleotide chain termination method. The wild-type virus, A/Los Angeles/2/87, was freely excreted by squirrel monkeys and induced high titres of protective antibodies. The reassortant with 6 internal avian genes had a much reduced excretion rate but was still potently antigenic. SGR with avian PB2 was ***over*** - ***attenuated*** and non-antigenic, SGR NP attenuated and antigenic, SGR M similar, while SGRs containing avian PA, NS, or PB1 were apparently non-attenuated. But volunteers gave quite different results: the reassortant with 6 avian and 2 human glycoprotein genes were attenuated and antigenic, as were SGRs with avian NS, M, PB2 or PB1. But SGR NP was not attenuated. SGR PB2 and SGR M also had laboratory properties not seen in either parent virus. Whether the phenotypes of these 2 SGRs were mediated by defects in the genes they had received or by altered gene constellations could not be decided. The squirrel monkeys were not an infallible human model and the divergent results with SGR NP were especially notable. A.S. Beare

AB Gene reassortant viruses as live influenza ***vaccines*** provide the incidental benefit of an influenza virus genetic analysis. Initially, these were prepared by the transfer of temperature-sensitive or. . . 6 internal avian genes had a much reduced excretion rate but was still potently antigenic. SGR with avian PB2 was ***over*** - ***attenuated*** and non-antigenic, SGR NP attenuated and antigenic, SGR M similar, while SGRs containing avian PA, NS, or PB1 were apparently. . .

L11 ANSWER 13 OF 34 CABA COPYRIGHT 2009 CABI on STN

AN 90:152264 CABA <<LOGINID::20091118>>

DN 19902076363

TI Evaluation in children of cold-adapted influenza B live attenuated intranasal ***vaccine*** prepared by reassortment between wild-type B/Ann Arbor/1/86 and cold-adapted B/Leningrad/14/55 viruses

AU Obrosova-Serova, N. P.; Slepushkin, A. N.; Kendal, A. P.; et al.; Alexandrova, G. I.; Maassab, H. F.; Medvedeva, T. E.

CS (A.P. Kendal) Influenza Branch, Div. Viral Dis., CID, CDC, Publ. Hlth Serv., US DHHS, Atlanta, GA 30333, USA.

SO Vaccine, (1990) Vol. 8, No. 1, pp. 57-60.
ISSN: 0264-410X

DT Journal

LA English

ED Entered STN: 1990
Last Updated on STN: 1990

AB Human live influenza A ***vaccines*** have for a long time been

produced in the USA and the USSR by reassortment of genes of wild-type (wt) viruses with those of low-temperature-adapted (ca) laboratory viruses: these reassortants generally contain the surface antigens of the wt parents and most (or all) of the internal proteins of the ca parents. This and the subsequent paper (G.I. Alexandrova et al., pp. 61-64) record a joint comparative study in the USSR and USA of live influenza B ***vaccines*** selected by this technique. The first paper describes a Russian trial in 196 children (divided into 2 groups, 8-15 years old and 3-7 years old) with a ***vaccine*** prepared in the USA from ca B/Leningrad/14/55 and wt B/Ann Arbor/1/86. The trial took place in Moscow in March-May 1987, the older children being ***vaccinated*** first. Very little clinical effect was observed. Antibodies were measured by neutralization and haemagglutination-inhibition and agreed fairly well. A single virus dose of nearly 107.0 50% egg-infecting dose produced 60% antibody rises in the younger children: these rose to 70% after 2 doses at 3-week intervals. However, there were only 36% responses in the older children even after 2 doses and the virus could well have been ***over*** - ***attenuated*** . The second paper gives an account of laboratory testing of 2 sets of reassortants: (1) ca B/Leningrad/14/55-wt B/Ann Arbor/1/86, and (2) ca B/Ann Arbor /1/56-wt B/Ann Arbor/1/86. The object was [presumably] to determine the relative merits of the Russian and American ca viruses for live ***vaccine*** selection. The wt virus grew well at 33 and 37 [deg]C but not at 25 or 39 [deg]C. B/Leningrad/14/55 was passed 20 times in eggs at 32 /degrees/C and 17 times at 25 /degrees/C after which it was pronounced ca: it grew well at 23, 33, and 37 [deg]C but not at 39 [deg]C, and the reassortant ca Leningrad/14/55-wt AA/1/86 had similar growth properties. The American ca master virus, B/AA/1/86, prepared many years ago, was more temperature-sensitive, as was a reassortant, ca AA/1/66-wt AA/1/86. When given to ferrets ca AA/1/66 and its reassortant replicated in the trachea but not in the lungs: ca Leningrad/14/55 and its reassortant did multiply in the lungs but to a lesser extent than in the trachea. [It is not really surprising that there was so little to choose between the 2 master viruses.] A.S. Beare

TI Evaluation in children of cold-adapted influenza B live attenuated intranasal ***vaccine*** prepared by reassortment between wild-type B/Ann Arbor/1/86 and cold-adapted B/Leningrad/14/55 viruses.

AB Human live influenza A ***vaccines*** have for a long time been produced in the USA and the USSR by reassortment of genes of wild-type (wt). . . (G.I. Alexandrova et al., pp. 61-64) record a joint comparative study in the USSR and USA of live influenza B ***vaccines*** selected by this technique. The first paper describes a Russian trial in 196 children (divided into 2 groups, 8-15 years old and 3-7 years old) with a ***vaccine*** prepared in the USA from ca B/Leningrad/14/55 and wt B/Ann Arbor/1/86. The trial took place in Moscow in March-May 1987, the older children being ***vaccinated*** first. Very little clinical effect was observed. Antibodies were measured by neutralization and haemagglutination-inhibition and agreed fairly well. A single. . . there were only 36% responses in the older children even after 2 doses and the virus could well have been ***over*** - ***attenuated*** . The second paper gives an account of laboratory testing of 2 sets of reassortants: (1) ca B/Leningrad/14/55-wt B/Ann Arbor/1/86, and. . . B/Ann Arbor/1/86. The object was [presumably] to determine the relative merits of the Russian and American ca viruses for live ***vaccine*** selection. The wt virus grew well at 33 and 37 [deg]C but not at 25 or 39 [deg]C. B/Leningrad/14/55 was. . .

CT Influenza B; immunization; ***vaccines*** ; live ***vaccines*** ; adaptation; children; trials; strains; influenza; comparisons; cold

L11 ANSWER 14 OF 34 CABA COPYRIGHT 2009 CABI on STN

AN 88:133320 CABA <<LOGINID::20091118>>

DN 19892057742

TI Local and systemic immune response in rabbits after intraintestinal immunization with a double-marker attenuated strain of Salmonella typhimurium

AU Denchev, V.; Mitov, I.; Marinova, S.; Linde, K.

CS Res. Inst. Infect. & Parasitic Dis, Med. Acad., Boul. Vladimir Zaimov 26, Sofia 1504, Bulgaria.

SO Journal of Hygiene, Epidemiology, Microbiology and Immunology, (1988) Vol. 32, No. 4, pp. 457-465.
ISSN: 0022-1732

DT Journal
LA English
SL French; German; Spanish
ED Entered STN: 1988
Last Updated on STN: 1988
AB This study reports on the immunogenicity of a double-deletion mutant (purine and histidine auxotrophies) of Salmonella typhimurium in New Zealand white rabbits. The ***vaccine*** strain was administered intraintestinally distal to the duodenum after laparotomy using doses of 2 x 108 viable organisms. Specific local and systemic humoral immune responses were determined using the relatively dated procedures of passive haemagglutination and Coombs' technique. Using these techniques it was possible to show that this strain induced significant rises in specific secretory IgA in faeces (coproantibody) and systemically (where it was observed to be mainly in the IgG and IgM classes). These responses were able to be enhanced by the further administration of a "booster" dose. The immune responses observed using this attenuated live strain were significantly greater than those observed in rabbits receiving a soluble extract of the ***vaccine*** organism, indicating the importance of colonization and persistence in the generation of a local immune response. [It is unlikely that this approach would result in the development of a new ***vaccine*** against typhoid fever in humans, as purine auxotrophs of Salmonella typhi have been shown to be severely ***over*** - ***attenuated*** . However, this approach may have considerable veterinary application.] Bruce Forrest
AB . . . on the immunogenicity of a double-deletion mutant (purine and histidine auxotrophies) of Salmonella typhimurium in New Zealand white rabbits. The ***vaccine*** strain was administered intraintestinally distal to the duodenum after laparotomy using doses of 2 x 108 viable organisms. Specific local. . . observed using this attenuated live strain were significantly greater than those observed in rabbits receiving a soluble extract of the ***vaccine*** organism, indicating the importance of colonization and persistence in the generation of a local immune response. [It is unlikely that this approach would result in the development of a new ***vaccine*** against typhoid fever in humans, as purine auxotrophs of Salmonella typhi have been shown to be severely ***over*** - ***attenuated*** . However, this approach may have considerable veterinary application.] Bruce Forrest

L11 ANSWER 15 OF 34 CABA COPYRIGHT 2009 CABI on STN
AN 83:120224 CABA <<LOGINID::20091118>>
DN 19832219693
TI Experimental studies in a mouse model with attenuated mutants of a Pasteurella multocida strain pathogenic for calves. 5. Spontaneous chromosomal resistance to antibiotics as a possibility for isolating attenuated clones
Experimentelle Untersuchungen am Mausemodell mit attenuierten Mutanten eines kalberpathogenen Pasteurella-multocida-Stammes. 5. Spontane chromosomale Antibiotika-Resistenz als Moglichkeit zur Isolierung virulenzgeminderter Klone
AU Linde, K.
CS Inst. Med. Mikrobiol., Karl-Marx-Univ., Leibigst. 24, DDR-7010 Leipzig, German Democratic Republic.
SO Archiv fur Experimentelle Veterinarmedizin, (1982) Vol. 36, No. 5, pp. 647-656. 23 ref.
ISSN: 0003-9055
DT Journal
LA German
SL English; Russian
ED Entered STN: 1 Nov 1994
Last Updated on STN: 1 Nov 1994
AB Spontaneous mutants of ribonucleic acid (RNA) polymerase (with resistance to rifampicin), gyrase (with resistance to nalidixic acid), and ribosomes (with resistance to oleandomycin, lincomycin, and erythromycin) of P. multocida were tested for virulence in an intraperitoneal mouse model. The "resistance" clones broke down, depending on the antibiotic used, into a spectrum of strains with more or less strongly pronounced attenuation. Minor reduction of virulence (one-marker clones of resistance to rifampicin, nalidixic acid, and oleandomycin) was identifiable only by prolongation of extinction time. Mice which survived by strong attenuation (resistance to lincomycin and erythromycin) usually were not protected

when exposed to wild strains, which was ascribed to ***over*** - ***attenuation*** of mutants. Potential double-marker or triple-marker ***vaccine*** strains, which protected the mouse model from lethal wild strain infection, could be produced by stepwise incorporation of two weakly attenuating mutations into the wild Pasteurella strain or by additional incorporation of a weakly attenuating "resistance" mutation into a highly immunogenic mutant. Potential Pasteurella ***vaccine*** srains with mutated subunits of RNA polymerase, gyrase, and ribosomes are described. Reference is made to the problem of "translation of mouse model experience to farm animals", and suggestions are made about the molecular-biological background of the "resistance" attenuation phenomenon.

AB . . . strong attenuation (resistance to lincomycin and erythromycin) usually were not protected when exposed to wild strains, which was ascribed to ***over*** - ***attenuation*** of mutants. Potential double-marker or triple-marker ***vaccine*** strains, which protected the mouse model from lethal wild strain infection, could be produced by stepwise incorporation of two weakly. . . wild Pasteurella strain or by additional incorporation of a weakly attenuating "resistance" mutation into a highly immunogenic mutant. Potential Pasteurella ***vaccine*** srains with mutated subunits of RNA polymerase, gyrase, and ribosomes are described. Reference is made to the problem of "translation. . .

CT Antibiotics; Nalidixic acid; Oleandomycin; Lincomycin; Erythromycin; ***Vaccines*** ; drug resistance; bacterial diseases

L11 ANSWER 16 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2008:1529910 CAPLUS <<LOGINID::20091118>>

DN 150:54210

TI Chimeric St. Louis encephalitis virus/dengue type 4 virus for ***vaccination***

IN Blaney, Joseph E.; Murphy, Brian; Pletnev, Alexander G.; Whitehead, Stephen

PA United States Dept. of Health and Human Services, USA

SO PCT Int. Appl., 84pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2008157136	A1	20081224	WO 2008-US66445	20080610

W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRAI US 2007-934730P P 20070614

AB Embodiments described herein concern attenuated, St. Louis Encephalitis Virus/dengue virus type 4 antigenic chimeric viruses, which can be used to prep. immunogenic compns., ***vaccines*** , and diagnostic reagents. Provided are two antigenic chimeric viruses, SLE/DEN4 and SLE/DEN4.DELTA.30, which were generated by replacing the membrane precursor and envelope protein genes of dengue virus type 4 (DEN4) with those from St. Louis encephalitis virus (SLE) with or without a 30 nucleotide deletion in the DEN4 3' untranslated region of the chimeric genome. The resulting viruses, SLE/DEN4 and SLE/DEN4.DELTA.30, had greatly reduced neuroinvasiveness in immunodeficient mice but retained neurovirulence in suckling mice. Chimerization of SLE with DEN4 resulted in only moderate restriction in replication in rhesus monkeys, whereas the presence of the .DELTA.30 mutation led to ***over*** - ***attenuation*** . The two modified SLE/DEN4 viruses, SLE/DEN4-436,437 clone 641 and SLE/DEN4-654,655 clone 646, were found to have significantly reduced neurovirulence in mice and conferred protective immunity in monkeys against SLE challenge.

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Chimeric St. Louis encephalitis virus/dengue type 4 virus for ***vaccination***

AB . . . concern attenuated, St. Louis Encephalitis Virus/dengue virus type 4 antigenic chimeric viruses, which can be used to prep. immunogenic compns., ***vaccines*** , and diagnostic reagents. Provided are two antigenic chimeric viruses, SLE/DEN4 and SLE/DEN4.DELTA.30, which were generated by replacing the membrane precursor. . . DEN4 resulted in only moderate restriction in replication in rhesus monkeys, whereas the presence of the .DELTA.30 mutation led to ***over*** - ***attenuation*** . The two modified SLE/DEN4 viruses, SLE/DEN4-436,437 clone 641 and SLE/DEN4-654,655 clone 646, were found to have significantly reduced neurovirulence in. . .

ST St Louis encephalitis dengue virus chimerization ***vaccine*** ; SLE virus DEN4 chimerization ***vaccine***

IT Genetic element
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(3'-untranslated region, deletion in; stem-loop deletion mutants of dengue viruses for ***vaccination***)

IT Nonstructural proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(NS5, from dengue type 4 virus; chimeric St. Louis encephalitis virus/dengue type 4 virus for ***vaccination***)

IT Animal cell line
(Vero, viral replication in; chimeric St. Louis encephalitis virus/dengue type 4 virus for ***vaccination***)

IT Dengue virus 1
Dengue virus 2
Dengue virus 3
Dengue virus 4
Genetic engineering
Protein sequences
St. Louis encephalitis virus
Vaccines
Viral RNA sequences
Virus replication
(chimeric St. Louis encephalitis virus/dengue type 4 virus for ***vaccination***)

IT Envelope proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(from SLE virus; chimeric St. Louis encephalitis virus/dengue type 4 virus for ***vaccination***)

IT Nonstructural proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(from dengue type 4 virus; chimeric St. Louis encephalitis virus/dengue type 4 virus for ***vaccination***)

IT Mutagenesis
(in NS5 protein of dengue type 4 virus and E protein of SLE virus; chimeric St. Louis encephalitis virus/dengue type 4 virus for ***vaccination***)

IT Virulence (microbial)
(neurovirulence; chimeric St. Louis encephalitis virus/dengue type 4 virus for ***vaccination***)

IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(prM (premembrane), from SLE virus; chimeric St. Louis encephalitis virus/dengue type 4 virus for ***vaccination***)

IT Stem-loop structure
(stem-loop deletion mutants of dengue viruses for ***vaccination***)

IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(structural, from SLE virus; chimeric St. Louis encephalitis virus/dengue type 4 virus for ***vaccination***)

IT Macaca mulatta
(***vaccination*** in; chimeric St. Louis encephalitis virus/dengue type 4 virus for ***vaccination***)

IT 1093036-10-2 1093036-12-4 1093036-13-5 1093036-16-8 1093036-18-0
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL

(Biological study)
(amino acid sequence; chimeric St. Louis encephalitis virus/dengue type 4 virus for ***vaccination***)
IT 1093036-09-9 1093036-11-3 1093036-14-6 1093036-15-7 1093036-17-9
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(nucleotide sequence; chimeric St. Louis encephalitis virus/dengue type 4 virus for ***vaccination***)
IT 1093037-06-9 1093037-07-0 1093037-08-1 1093037-09-2
RL: PRP (Properties)
(unclaimed nucleotide sequence; chimeric St. Louis encephalitis virus/dengue type 4 virus for ***vaccination***)
IT 848647-45-0 1092939-87-1 1092939-88-2 1092939-89-3 1092939-90-6 1092939-91-7
RL: PRP (Properties)
(unclaimed protein sequence; chimeric St. Louis encephalitis virus/dengue type 4 virus for ***vaccination***)

L11 ANSWER 17 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2007:973241 CAPLUS <<LOGINID::20091118>>
DN 148:76575
TI Attenuation and efficacy of human parainfluenza virus type 1 (HPIV1) ***vaccine*** candidates containing stabilized mutations in the P/C and L genes
AU Bartlett, Emmalene J.; Castano, Adam; Surman, Sonja R.; Collins, Peter L.; Skiadopoulos, Mario H.; Murphy, Brian R.
CS Laboratory of Infectious Diseases, Respiratory Viruses Section, National Institute of Allergy and Infectious Diseases (NIAID), Department of Health and Human Services, National Institutes of Health (NIH), Bethesda, MD, USA
SO Virology Journal (2007), 4, No pp. given
CODEN: VJIOA4; ISSN: 1743-422X
URL: http://www.virologyj.com/content/pdf/1743-422X-4-67.pdf
PB BioMed Central Ltd.
DT Journal; (online computer file)
LA English
AB Two recombinant, live attenuated human parainfluenza virus type 1 (rHPIV1) mutant viruses have been developed, using a reverse genetics system, for evaluation as potential intranasal ***vaccine*** candidates. These rHPIV1 ***vaccine*** candidates have 2 non-temp. sensitive (non-ts) attenuating (att) mutations primarily in the P/C gene, namely CR84GHNT553A (2 point mutations used together as a set) and C.DELTA.170 (a short deletion mutation), and 2ts att mutations in the L gene, namely LY942A (a point mutation), and L.DELTA.1710-11 (a short deletion), the last of which has not been previously described. The latter 3 mutations were specifically designed for increased genetic and phenotypic stability. These mutations were evaluated on the HPIV1 backbone, both individually and in combination, for attenuation, immunogenicity, and protective efficacy in African green monkeys (AGMs). The rHPIV1 mutant bearing the novel L.DELTA.1710-11 mutation was highly ts and attenuated in AGMs and was immunogenic and efficacious against HPIV1 wt challenge. The rHPIV1-CR84G/.DELTA.170HNT553ALY942A and rHPIV1-CR84G/.DELTA.170HNT553AL.DELTA.1710-11 ***vaccine*** candidates were highly ts, with shut-off temps. of 38.degree. and 35.degree., resp., and were highly attenuated in AGMs. Immunization with rHPIV1-CR84G/.DELTA.170HNT553ALY942A protected against HPIV1 wt challenge in both the upper and lower respiratory tracts. In contrast, rHPIV1-CR84G/.DELTA.170HNT553AL.DELTA.1710-11 was not protective in AGMs due to ***over*** - ***attenuation*** , but it is expected to replicate more efficiently and be more immunogenic in the natural human host. Thus, the rHPIV1-CR84G/.DELTA.170HNT553ALY942A and rHPIV1-CR84G/.DELTA.170HNT553AL.DELTA.1710-11 ***vaccine*** candidates are clearly highly attenuated in AGMs and clin. trials are planned to address safety and immunogenicity in humans.
RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
TI Attenuation and efficacy of human parainfluenza virus type 1 (HPIV1) ***vaccine*** candidates containing stabilized mutations in the P/C and L genes
AB . . . parainfluenza virus type 1 (rHPIV1) mutant viruses have been developed, using a reverse genetics system, for evaluation as potential intranasal ***vaccine*** candidates. These rHPIV1 ***vaccine***

candidates have 2 non-temp. sensitive (non-ts) attenuating (att) mutations primarily in the P/C gene, namely CR84GHNT553A (2 point mutations used. . . was highly ts and attenuated in AGMs and was immunogenic and efficacious against HPIV1 wt challenge. The rHPIV1-CR84G/.DELTA.170HNT553ALY942A and rHPIV1-CR84G/.DELTA.170HNT553AL.DELTA.1710-11 ***vaccine*** candidates were highly ts, with shut-off temps. of 38.degree. and 35.degree., resp., and were highly attenuated in AGMs. Immunization with. . . wt challenge in both the upper and lower respiratory tracts. In contrast, rHPIV1-CR84G/.DELTA.170HNT553AL.DELTA.1710-11 was not protective in AGMs due to ***over*** - ***attenuation*** , but it is expected to replicate more efficiently and be more immunogenic in the natural human host. Thus, the rHPIV1-CR84G/.DELTA.170HNT553ALY942A and rHPIV1-CR84G/.DELTA.170HNT553AL.DELTA.1710-11 ***vaccine*** candidates are clearly highly attenuated in AGMs and clin. trials are planned to address safety and immunogenicity in humans.

ST parainfluenza virus 1 ***vaccine*** mutation PC L gene

IT Gene, microbial
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(L; efficacy of human parainfluenza virus type I ***vaccine*** contg. mutations in P/C and L genes)

IT Gene, microbial
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(P/C; efficacy of human parainfluenza virus type I ***vaccine*** contg. mutations in P/C and L genes)

IT Mutation
(deletion; efficacy of human parainfluenza virus type I ***vaccine*** contg. mutations in P/C and L genes)

IT Human
Infection
Infection
Virus replication
(efficacy of human parainfluenza virus type I ***vaccine*** contg. mutations in P/C and L genes)

IT Cercopithecus aethiops sabaeus
(efficacy of human parainfluenza virus type I ***vaccine*** contg. mutations in P/C and L genes in)

IT ***Vaccines***
(nasal; efficacy of human parainfluenza virus type I ***vaccine*** contg. mutations in P/C and L genes)

IT Mutation
(point; efficacy of human parainfluenza virus type I ***vaccine*** contg. mutations in P/C and L genes)

IT Human parainfluenza virus
(type I; efficacy of human parainfluenza virus type I ***vaccine*** contg. mutations in P/C and L genes)

L11 ANSWER 18 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2007:909971 CAPLUS <<LOGINID::20091118>>
DN 147:320746
TI Past, present and future of RSV and PIV ***vaccines*** and anti-RSV antibodies for the protection of humans against RSV
AU Becker, Yechiel
CS Department of Molecular Virology, Faculty of Medicine, The Hebrew University of Jerusalem, Jerusalem, 91120, Israel
SO Expert Opinion on Therapeutic Patents (2007), 17(8), 941-953
CODEN: EOTPEG; ISSN: 1354-3776
PB Informa Healthcare
DT Journal; General Review
LA English
AB A review. The human respiratory syncytial virus (RSV) is a human pathogen that infects infants, children under 2 years of age and elderly people, causing a lower respiratory tract infection, while evading the host's adaptive immune response. This review summarizes the efforts to develop a safe ***vaccine*** and synthetic antibodies for immunization of infants and children at risk. The first formalin-inactivated human RSV ***vaccine*** , FI-RSV, was developed and tested during the 1960s in infants and children. The results of this human trial revealed that control children, who were not ***vaccinated*** , recovered from RSV infection, while the ***vaccinated*** children required hospitalization and two infants died. These results led to attempts to

develop a cold-passage, temp.-sensitive (cpts) attenuated RSV ***vaccine*** . This ***vaccine*** was tested in small lab. animals, monkeys and chimpanzees, and finally in children. The results of the human trial (published in 2005) revealed that the cpts ***vaccine*** was ***over*** - ***attenuated*** . RSV recombinants and parainfluenza virus recombinants developed in addnl. studies were tested in small lab. animals. The unsuccessful attempts to produce an RSV ***vaccine*** led to the development of humanized anti-RSV mouse monoclonal antibodies (palivizumab) that were approved by the FDA for passive immunization of infants and children at risk of aggravated RSV disease. Recent studies with formalin-inactivated bovine RSV ***vaccine*** formulated with the adjuvant monophosphoryl lipid A (MPL) protected newborn calves against RSV challenge. It is suggested that an apathogenic attenuated RSV deletion mutant, formulated with MPL and devoid of the viral genes that result in evasion of the human adaptive immune response, may be a useful ***vaccine*** .

RE.CNT 70 THERE ARE 70 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Past, present and future of RSV and PIV ***vaccines*** and anti-RSV antibodies for the protection of humans against RSV

AB . . . lower respiratory tract infection, while evading the host's adaptive immune response. This review summarizes the efforts to develop a safe ***vaccine*** and synthetic antibodies for immunization of infants and children at risk. The first formalin-inactivated human RSV ***vaccine*** , FI-RSV, was developed and tested during the 1960s in infants and children. The results of this human trial revealed that control children, who were not ***vaccinated*** , recovered from RSV infection, while the ***vaccinated*** children required hospitalization and two infants died. These results led to attempts to develop a cold-passage, temp.-sensitive (cpts) attenuated RSV ***vaccine*** . This ***vaccine*** was tested in small lab. animals, monkeys and chimpanzees, and finally in children. The results of the human trial (published in 2005) revealed that the cpts ***vaccine*** was ***over*** - ***attenuated*** . RSV recombinants and parainfluenza virus recombinants developed in addnl. studies were tested in small lab. animals. The unsuccessful attempts to produce an RSV ***vaccine*** led to the development of humanized anti-RSV mouse monoclonal antibodies (palivizumab) that were approved by the FDA for passive immunization of infants and children at risk of aggravated RSV disease. Recent studies with formalin-inactivated bovine RSV ***vaccine*** formulated with the adjuvant monophosphoryl lipid A (MPL) protected newborn calves against RSV challenge. It is suggested that an apathogenic. . . and devoid of the viral genes that result in evasion of the human adaptive immune response, may be a useful ***vaccine*** .

ST review respiratory syncytial virus ***vaccine*** antibody immunotherapy

IT Human
Respiratory syncytial virus
Vaccines
(protection effects of PIV ***vaccines*** and anti-respiratory syncytial virus antibodies)

IT Antibodies and Immunoglobulins
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(protection effects of PIV ***vaccines*** and anti-respiratory syncytial virus antibodies)

L11 ANSWER 19 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2005:607098 CAPLUS <<LOGINID::20091118>>
TI Combination ***vaccine*** for poultry
IN Jacobs, Antonius Arnoldus Christiaan; Van, Empel Paul Cornelius Maria; Nuijten, Petrus Johannes Maria
PA Akzo Nobel N.V., Neth.; Van Empel, Paul Cornelius Maria
SO PCT Int. Appl.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005063284	A1	20050714	WO 2004-EP53623	20041221

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA	2550923	A1	20050714	CA 2004-2550923	20041221
EP	1699483	A1	20060913	EP 2004-804958	20041221
EP	1699483	B1	20090311		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS

BR	2004017880	A	20070427	BR 2004-17880	20041221
JP	2007518717	T	20070712	JP 2006-546172	20041221
AT	424844	T	20090315	AT 2004-804958	20041221
ES	2322272	T3	20090618	ES 2004-804958	20041221
US	20090053262	A1	20090226	US 2006-582315	20060608
PRAI EP	2003-104954	A	20031223		
	WO 2004-EP53623	W	20041221		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The present invention relates to a combination ***vaccine*** for the protection of poultry against Ornithobacterium rhinotracheale, to the use of a live ***over*** - ***attenuated*** Ornithobacterium rhinotracheale strain and a live attenuated poultry virus for the manufacturing of such a combination ***vaccine*** , to methods for the preparation of said combination ***vaccine*** and to ***vaccination*** kits for the immunization of poultry against Ornithobacterium rhinotracheale.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Combination ***vaccine*** for poultry

AB The present invention relates to a combination ***vaccine*** for the protection of poultry against Ornithobacterium rhinotracheale, to the use of a live ***over*** - ***attenuated*** Ornithobacterium rhinotracheale strain and a live attenuated poultry virus for the manufacturing of such a combination ***vaccine*** , to methods for the preparation of said combination ***vaccine*** and to ***vaccination*** kits for the immunization of poultry against Ornithobacterium rhinotracheale.

L11 ANSWER 20 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2005:203244 CAPLUS <<LOGINID::20091118>>
DN 142:296642
TI Influence of ESAT-6 Secretion System 1 (RD1) of Mycobacterium tuberculosis on the Interaction between Mycobacteria and the Host Immune System
AU Majlessi, Laleh; Brodin, Priscille; Brosch, Roland; Rojas, Marie-Jesus; Khun, Huot; Huerre, Michel; Cole, Stewart T.; Leclerc, Claude
CS Unite de Biologie des Regulations Immunitaires, Institut Pasteur, Institut National de la Sante et de la Recherche Medicale Equipe 352, Paris, 75724, Fr.
SO Journal of Immunology (2005), 174(6), 3570-3579
CODEN: JOIMA3; ISSN: 0022-1767
PB American Association of Immunologists
DT Journal
LA English
AB The chromosomal locus encoding the early secreted antigenic target, 6 kDa (ESAT-6) secretion system 1 of Mycobacterium tuberculosis, also referred to as "region of difference 1 (RD1)," is absent from Mycobacterium bovis bacillus Calmette-Guerin (BCG). Here, using low-dose aerosol infection in mice, the authors demonstrate that BCG complemented with RD1 (BCG/RD1) displays markedly increased virulence which albeit does not attain that of M. tuberculosis H37Rv. Nevertheless, phenotypic and functional analyses of immune cells at the site of infection show that the capacity of BCG/RD1 to initiate recruitment/activation of immune cells is comparable to that of fully virulent H37Rv. Indeed, in contrast to the parental BCG, BCG/RD1 mimics H37Rv and induces substantial influx of activated (CD44highCD45RB-CD62L-) or effector (CD45RB-CD27-) T cells and of

activated CD11c+CD11bhigh cells to the lungs of aerosol-infected mice. For the first time, using in vivo anal. of transcriptome of inflammatory cytokines and chemokines of lung interstitial CD11c+ cells, the authors show that in a low-dose aerosol infection model, BCG/RD1 triggered an activation/inflammation program comparable to that induced by H37Rv while parental BCG, due to its ***over*** - ***attenuation*** , did not initiate the activation program in lung interstitial CD11c+ cells. Thus, products encoded by the ESAT-6 secretion system 1 of M. tuberculosis profoundly modify the interaction between mycobacteria and the host innate and adaptive immune system. These modifications can explain the previously described improved protective capacity of BCG/RD1 ***vaccine*** candidate against M. tuberculosis challenge.

OSC.G 31 THERE ARE 31 CAPLUS RECORDS THAT CITE THIS RECORD (31 CITINGS)

RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB . . . aerosol infection model, BCG/RD1 triggered an activation/inflammation program comparable to that induced by H37Rv while parental BCG, due to its ***over*** - ***attenuation*** , did not initiate the activation program in lung interstitial CD11c+ cells. Thus, products encoded by the ESAT-6 secretion system 1. . . and the host innate and adaptive immune system. These modifications can explain the previously described improved protective capacity of BCG/RD1 ***vaccine*** candidate against M. tuberculosis challenge.

IT ***Vaccines***
(tuberculosis; ESAT-6 secretion system 1 (RD1) of Mycobacterium tuberculosis influence on interaction between mycobacteria and host immune system in relation to)

L11 ANSWER 21 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2000:406926 CAPLUS <<LOGINID::20091118>>

DN 133:162910

TI Role of Type I IFNs in the in Vitro Attenuation of Live, Temperature-Sensitive ***Vaccine*** Strains of Human Respiratory Syncytial Virus

AU Loveys, Deborah A.; Kulkarni, Sandhya; Atreya, Prabha L.

CS Laboratory of Pediatric and Respiratory Viral Diseases, Food and Drug Administration, Bethesda, MD, 20892, USA

SO Virology (2000), 271(2), 390-400
CODEN: VIRLAX; ISSN: 0042-6822

PB Academic Press

DT Journal

LA English

AB The contributions of type I interferons (IFNs) to the in vitro attenuation of 3 temp.-sensitive (Ts) subgroup A and 1 subgroup B deletion mutant RSV strains were evaluated. The ability of these ***vaccine*** viruses to induce IFNs at their permissive and restrictive temps. and their sensitivity to the antiviral effects of exogenous I IFNs were tested in human lung epithelial A549 cells. The authors' results show that the highly attenuated and immunogenic subgroup A ***vaccine*** strain Ts1C produced higher levels of IFN-.beta. than its parent RSS-2 or 2 related strains, Ts1A and Ts1B, at their permissive temp. Growth of RSV-infected A549 cultures at restrictive temps. or prior UV inactivation of the virus abolished the obsd. induction of IFN-.beta., suggesting a strict requirement of viral replication for cellular IFN induction. The enhanced induction of IFN-.beta. by the highly immunogenic Ts1C at permissive temp. may be an advantageous characteristic of a live intranasal ***vaccine*** candidate. The subgroup B strain RSV B1 and its mutant cp-52 (with SH and G gene deletions) both induced similar but low levels of IFN-.beta.. Hence the obsd. ***over*** - ***attenuation*** of cp-52 in human infants is probably not due to enhanced IFN induction during its replication in the host. The ability of cp-52, which does not express the SH and G proteins, to induce IFN-.beta. levels similar to those of its parent strain suggests that these viral proteins may not have a role in the induction of IFN-.beta. in the host. In addn., both subgroup A and B mutants and their resp. parent strains were similarly resistant to the antiviral effects of exogenous IFN-.alpha. or -.beta.. Therefore, increased sensitivity of the mutants to IFNs does not seem to contribute to their attenuation. (c) 2000 Academic Press.

OSC.G 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

RE.CNT 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Role of Type I IFNs in the in Vitro Attenuation of Live, Temperature-Sensitive ***Vaccine*** Strains of Human Respiratory Syncytial Virus

AB . . . of 3 temp.-sensitive (Ts) subgroup A and 1 subgroup B deletion mutant RSV strains were evaluated. The ability of these ***vaccine*** viruses to induce IFNs at their permissive and restrictive temps. and their sensitivity to the antiviral effects of exogenous I. . . were tested in human lung epithelial A549 cells. The authors' results show that the highly attenuated and immunogenic subgroup A ***vaccine*** strain Ts1C produced higher levels of IFN-.beta. than its parent RSS-2 or 2 related strains, Ts1A and Ts1B, at their. . . induction of IFN-.beta. by the highly immunogenic Ts1C at permissive temp. may be an advantageous characteristic of a live intranasal ***vaccine*** candidate. The subgroup B strain RSV B1 and its mutant cp-52 (with SH and G gene deletions) both induced similar but low levels of IFN-.beta.. Hence the obsd. ***over*** - ***attenuation*** of cp-52 in human infants is probably not due to enhanced IFN induction during its replication in the host. The. . .

ST respiratory syncytial virus ***vaccine*** type I interferon

IT ***Vaccines***
(attenuated; type I interferons role in attenuation of live, temp.-sensitive ***vaccine*** strains of human respiratory syncytial virus)

IT Immunity
(immune surveillance; type I interferons role in attenuation of live, temp.-sensitive ***vaccine*** strains of human respiratory syncytial virus)

IT Human respiratory syncytial virus
(type I interferons role in attenuation of live, temp.-sensitive ***vaccine*** strains of human respiratory syncytial virus)

IT Interferons
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(.alpha./.beta.; type I interferons role in attenuation of live, temp.-sensitive ***vaccine*** strains of human respiratory syncytial virus)

L11 ANSWER 22 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1997:802696 CAPLUS <<LOGINID::20091118>>
DN 128:100868
OREF 128:19748h,19749a

TI Respiratory syncytial virus (RSV) SH and G proteins are not essential for viral replication in vitro: clinical evaluation and molecular characterization of a cold-passaged, attenuated RSV subgroup B mutant

AU Karron, Ruth A.; Buonagurio, Deborah A.; Georgiu, Alice F.; Whitefield, Stephen S.; Adamus, Jean E.; Clements-Mann, Mary Lou; Harris, Denos O.; Randolph, Valerie B.; Udem, Stephen A.; Murphy, Brian R.; Sidhu, Mohinderjit S.

CS Cent. Immunization Res., Dep. Intl. Health, Sch. Hygiene Public Health, Johns Hopkins Univ., Baltimore, MD, 21205, USA

SO Proceedings of the National Academy of Sciences of the United States of America (1997), 94(25), 13961-13966
CODEN: PNASA6; ISSN: 0027-8424

PB National Academy of Sciences

DT Journal

LA English

AB A live, cold-passaged (cp) candidate ***vaccine*** virus, designated respiratory syncytial virus (RSV) B1 cp-52/2B5 (cp-52), replicated efficiently in Vero cells, but was ***over*** - ***attenuated*** for RSV-seroneg. infants and children. Sequence anal. of reverse-transcription-PCR-amplified fragments of this mutant revealed a large deletion spanning most of the coding sequences for the small hydrophobic (SH) and attachment (G) proteins. Northern blot anal. of cp-52 detected multiple unique read-through mRNAs contg. SH and G sequences, consistent with a deletion mutation spanning the SH:G gene junction. Immunol. studies confirmed that an intact G glycoprotein was not produced by the cp-52 virus. Nonetheless, cp-52 was infectious and replicated to high titer in tissue culture despite the absence of the viral surface SH and G glycoproteins. Thus, the authors' characterization of this neg.-strand RNA virus identified a novel replication-competent deletion mutant lacking 2 of its 3 surface glycoproteins. The requirement

of SH and G for efficient replication in vivo suggests that selective deletion of one or both of these RSV genes may provide an alternative or additive strategy for developing an optimally attenuated ***vaccine*** candidate.

OSC.G 175 THERE ARE 175 CAPLUS RECORDS THAT CITE THIS RECORD (176 CITINGS)
RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB A live, cold-passaged (cp) candidate ***vaccine*** virus, designated respiratory syncytial virus (RSV) B1 cp-52/2B5 (cp-52), replicated efficiently in Vero cells, but was ***over*** - ***attenuated*** for RSV-seroneg. infants and children. Sequence anal. of reverse-transcription-PCR-amplified fragments of this mutant revealed a large deletion spanning most of. . . of one or both of these RSV genes may provide an alternative or additive strategy for developing an optimally attenuated ***vaccine*** candidate.

ST respiratory syncytial virus SH protein ***vaccine*** ; G protein respiratory syncytial virus ***vaccine***

IT Glycoproteins, specific or class
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(G, attachment; respiratory syncytial virus SH and G proteins lack of expression in relation to viral replication in vitro and development of attenuated viral ***vaccine***)

IT Gene, microbial
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(G; respiratory syncytial virus SH and G proteins lack of expression in relation to viral replication in vitro and development of attenuated viral ***vaccine***)

IT Glycoproteins, specific or class
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(SH (small hydrophobic); respiratory syncytial virus SH and G proteins lack of expression in relation to viral replication in vitro and development of attenuated viral ***vaccine***)

IT Gene, microbial
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(SH; respiratory syncytial virus SH and G proteins lack of expression in relation to viral replication in vitro and development of attenuated viral ***vaccine***)

IT Mutation
(deletion; respiratory syncytial virus SH and G proteins lack of expression in relation to viral replication in vitro and development of attenuated viral ***vaccine***)

IT Respiratory syncytial virus
Vaccines
(respiratory syncytial virus SH and G proteins lack of expression in relation to viral replication in vitro and development of attenuated viral ***vaccine***)

L11 ANSWER 23 OF 34 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1994:678391 CAPLUS <<LOGINID::20091118>>
DN 121:278391
OREF 121:50806h,50807a
TI Construction and evaluation of an expression vector allowing the stable expression of foreign antigens in a Salmonella typhimurium ***vaccine*** strain
AU Tijhaar, Edwin J.; Zheng-Xin, Yan; Karlas, Jos A.; Meyer, Thomas F.; Stukart, Marij J.; Osterhaus, Albert D. M. E.; Mooi, Frits R.
CS Laboratory Immunobiology, National Institute Public Health and Environmental Protection, Bilthoven, 3720 BA, Neth.
SO Vaccine (1994), 12(11), 1004-11
CODEN: VACCDE; ISSN: 0264-410X
DT Journal
LA English
AB Salmonella strains have great potential as live carriers of heterologous antigens to induce immunity against a variety of infectious diseases. However, the amt. of heterologous antigen required to induce an adequate immune response may be toxic for the bacterium and result in cell death, ***over*** - ***attenuation*** or loss of expression of the

heterologous antigen. To solve this problem an expression vector was developed with a strong promoter located on a DNA fragment which is inverted at random. Antigen is only expressed in one particular orientation of the promoter. Thus a bacterial population harboring the plasmid will consist of a subpopulation which does not produce heterologous antigen, and is therefore not affected in growth, persistence and dissemination within the host. Further, this non-producing population will continuously segregate antigen-producing bacteria. To evaluate the system, cholera toxin B subunit (CtxB) was used as a model antigen. Anal. of the plasmid DNA isolated from Salmonella revealed a selection against the promoter orientation that directs transcription of the CtxB gene. In spite of this, the vector was stably maintained in vivo and induced CtxB-specific IgA and IgG in mice. These results indicate that this kind of expression vector may offer a soln. to the problem of unstable expression of foreign antigens in live bacterial ***vaccine*** strains.

OSC.G 18 THERE ARE 18 CAPLUS RECORDS THAT CITE THIS RECORD (18 CITINGS)

TI Construction and evaluation of an expression vector allowing the stable expression of foreign antigens in a Salmonella typhimurium ***vaccine*** strain

AB . . . heterologous antigen required to induce an adequate immune response may be toxic for the bacterium and result in cell death, ***over*** - ***attenuation*** or loss of expression of the heterologous antigen. To solve this problem an expression vector was developed with a strong. . . kind of expression vector may offer a soln. to the problem of unstable expression of foreign antigens in live bacterial ***vaccine*** strains.

ST Salmonella ***vaccine*** plasmid vector foreign antigen

IT Salmonella typhimurium
(SL3261; mucosal and systemic immune response to plasmid invertible promoter-driven foreign antigen expression by ***vaccine*** strain of)

IT ***Vaccines***
(mucosal and systemic immune response to plasmid invertible promoter-driven foreign antigen expression by Salmonella typhimurium ***vaccine*** strain)

IT Antigens
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(mucosal and systemic immune response to plasmid invertible promoter-driven foreign antigen expression by Salmonella typhimurium ***vaccine*** strain)

IT Plasmid and Episome
(pYZ17; mucosal and systemic immune response to invertible promoter-driven foreign antigen expression by Salmonella typhimurium ***vaccine*** strain)

IT Toxins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(cholera, B subunit; mucosal and systemic immune response to plasmid invertible promoter-driven foreign antigen expression by Salmonella typhimurium ***vaccine*** strain)

IT Genetic element
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(promoter, invertible; mucosal and systemic immune response to plasmid foreign antigen expression by Salmonella typhimurium ***vaccine*** strain)

L11 ANSWER 24 OF 34 EMBASE

AN 2009517135 EMBASE <<LOGINID::20091118>>

TI Development of an experimental inactivated PRRSV ***vaccine*** that induces virus-neutralizing antibodies.

AU Vanhee, Merijn; Delputte, Peter L.; Delrue, Iris; Geldhof, Marc F.; Nauwynck, Hans J.

CS Department of Virology, Parasitology and Immunology, Faculty of Veterinary Medicine, Ghent University, Salisburylaan 133, 9820 Merelbeke, Belgium. hans.nauwynck@ugent.be

AU Nauwynck, H. J. (correspondence)
CS Department of Virology, Parasitology and Immunology, Faculty of Veterinary Medicine, Ghent University, Salisburylaan 133, 9820 Merelbeke, Belgium. hans.nauwynck@ugent.be
SO Veterinary Research, (November-December 2009) Vol. 40, No. 6.
Refs: 35
ISSN: 0928-4249; E-ISSN: 1297-9716 CODEN: VEREEM
PB EDP Sciences, 17 Avenue du Hoggar - BP 112, Les Ulis Cedex A, F-91944, France.
CY France
DT Journal; Article
FS 004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
026 Immunology, Serology and Transplantation
030 Clinical and Experimental Pharmacology
037 Drug Literature Index
039 Pharmacy
LA English
SL English
ED Entered STN: 6 Nov 2009
Last Updated on STN: 6 Nov 2009
AB Porcine reproductive and respiratory syndrome virus (PRRSV) can induce reproductive disorders and is involved in the porcine respiratory disease complex, causing tremendous economic losses to the swine industry. Inactivated PRRSV ***vaccines*** are preferred ***over*** ***attenuated*** ***vaccines*** because of their safety and flexibility towards emerging virus strains, but the efficacy of current inactivated PRRSV ***vaccines*** is questionable. In this study, experimental inactivated PRRSV ***vaccines*** were developed, based on two formerly optimized inactivation procedures: UV irradiation and treatment with binary ethylenimine (BEI). In a first experiment, it was shown that ***vaccination*** with UV- or BEI-inactivated virus in combination with Incomplete Freund's Adjuvant induced virus-specific antibodies and strongly primed the virus-neutralizing (VN) antibody response. Subsequently, the influence of adjuvants on the immunogenicity of neutralizing epitopes on the inactivated virus was investigated. It was shown that ***vaccination*** with BEI-inactivated virus in combination with a commercial oil-in-water adjuvant induced high titers (3.4 log2) of VN antibodies in 6/6 pigs, instead of only priming the neutralizing antibody response. After challenge, neutralizing antibody titers in these ***vaccinated*** animals rose to a mean value of 5.5 log2, and the duration of the viremia was reduced to an average of 1 week. This study shows that, by the use of an optimized inactivation procedure and a suitable adjuvant, inactivated PRRSV ***vaccines*** can be developed that induce VN antibodies and offer partial protection upon challenge. .COPYRGT. 2009 INRA EDP Sciences.
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AB . . . disorders and is involved in the porcine respiratory disease complex, causing tremendous economic losses to the swine industry. Inactivated PRRSV ***vaccines*** are preferred ***over*** ***attenuated*** ***vaccines*** because of their safety and flexibility towards emerging virus strains, but the efficacy of current inactivated PRRSV ***vaccines*** is questionable. In this study, experimental inactivated PRRSV ***vaccines*** were developed, based on two formerly optimized inactivation procedures: UV irradiation and treatment with binary ethylenimine (BEI). In a first experiment, it was shown that ***vaccination*** with UV- or BEI-inactivated virus in combination with Incomplete Freund's Adjuvant induced virus-specific antibodies and strongly primed the virus-neutralizing (VN). . . the influence of adjuvants on the immunogenicity of neutralizing epitopes on the inactivated virus was investigated. It was shown that ***vaccination*** with BEI-inactivated virus in combination with a commercial oil-in-water adjuvant induced high titers (3.4 log2) of VN antibodies in 6/6 pigs, instead of only priming the neutralizing antibody response. After challenge, neutralizing antibody titers in these ***vaccinated*** animals rose to a mean value of 5.5 log2, and the duration of the viremia was reduced to an average. . . 1 week. This study shows that, by the use of an optimized inactivation procedure and a suitable adjuvant, inactivated PRRSV ***vaccines*** can be developed that induce VN antibodies and offer partial protection upon challenge. .COPYRGT. 2009 INRA EDP Sciences.

CT Medical Descriptors:
animal experiment
antibody production
*antibody response
antibody specificity
antibody titer
*Arterivirus
article
controlled study
disease duration
experimental study
immunity
immunogenicity
infection prevention
nonhuman
piglet
treatment outcome
ultraviolet irradiation
vaccination
****vaccine production***
viremia: DT, drug therapy
viremia: PC, prevention
virus inactivation
aluminum hydroxide
aziridine
epitope: EC, endogenous compound
Freund adjuvant
****inactivated vaccine: DT, drug therapy***
****inactivated vaccine: IM, intramuscular drug administration***
****inactivated vaccine: PR, pharmaceutics***
****inactivated vaccine: PD, pharmacology***
*neutralizing antibody: EC, endogenous compound
****virus vaccine: DT, drug therapy***
****virus vaccine: IM, intramuscular drug administration***
****virus vaccine: PR, pharmaceutics***
****virus vaccine: PD, pharmacology***
ST Inactivated ***vaccine*** ; PRRSV

L11 ANSWER 25 OF 34 EMBASE COPYRIGHT (c) 2009 Elsevier B.V. All rights reserved on STN
AN 2007128620 EMBASE <<LOGINID::20091118>>
TI ***Vaccine*** candidates for dengue virus type 1 (DEN1) generated by replacement of the structural genes of rDEN4 and rDEN4.DELTA.30 with those of DEN1.
AU Blaney Jr., Joseph E. (correspondence); Sathe, Neeraj S.; Hanson, Christopher T.; Firestone, Cai Yen; Murphy, Brian R.; Whitehead, Stephen S.
CS Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD 20892, United States. bmurphy@niaid.nih.gov; cfirestone@niaid.nih.gov; sathen@niaid.nih.gov; chanson@niaid.nih.gov; jblaney@niaid.nih.gov; swhitehead@niaid.nih.gov
SO Virology Journal, (2007) Vol. 4. arn. 23.
Refs: 33
E-ISSN: 1743-422X
CY United Kingdom
DT Journal; Article
FS 026 Immunology, Serology and Transplantation
030 Clinical and Experimental Pharmacology
037 Drug Literature Index
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
LA English
SL English
ED Entered STN: 3 Apr 2007
Last Updated on STN: 3 Apr 2007
AB Background. Antigenic chimeric viruses have previously been generated in which the structural genes of recombinant dengue virus type 4 (rDEN4) have been replaced with those derived from DEN2 or DEN3. Two ***vaccine*** candidates were identified, rDEN2/4.DELTA.30(ME) and rDEN3/4.DELTA.30(ME), which contain the membrane (M) precursor and envelope (E) genes of DEN2 and DEN3, respectively, and a 30 nucleotide deletion (.DELTA.30) in the 3'

untranslated region of the DEN4 backbone. Based on the promising preclinical phenotypes of these viruses and the safety and immunogenicity of rDEN2/4.DELTA.30(ME) in humans, we now describe the generation of a panel of four antigenic chimeric DEN4 viruses using either the capsid (C), M, and E (CME) or ME structural genes of DEN1 Puerto Rico/94 strain. Results. Four antigenic chimeric viruses were generated and found to replicate efficiently in Vero cells: rDEN1/4(CME), rDEN1/ 4.DELTA.30(CME), rDEN1/4(ME), and rDEN1/4.DELTA.30(ME). With the exception of rDEN1/4(ME), each chimeric virus was significantly attenuated in a SCID-HuH-7 mouse xenograft model with a 25-fold or greater reduction in replication compared to wild type DEN1. In rhesus monkeys, only chimeric viruses with the .DELTA.30 mutation appeared to be attenuated as measured by duration and magnitude of viremia. rDEN1/4.DELTA.30(CME) appeared ***over*** - ***attenuated*** since it failed to induce detectable neutralizing antibody and did not confer protection from wild type DEN1 challenge. In contrast, rDEN1/4.DELTA.30(ME) induced 66% seroconversion and protection from DEN1 challenge. Presence of the .DELTA.30 mutation conferred a significant restriction in mosquito infectivity upon rDEN1/4.DELTA.30(ME) which was shown to be non-infectious for Aedes aegypti fed an infectious bloodmeal. Conclusion. The attenuation phenotype in SCID-HuH-7 mice, rhesus monkeys, and mosquitoes and the protective immunity observed in rhesus monkeys suggest that rDEN1/4.DELTA.30(ME) should be considered for evaluation in a clinical trial. .COPYRGT. 2007 Blaney et al; licensee BioMed Central Ltd.

TI ***Vaccine*** candidates for dengue virus type 1 (DEN1) generated by replacement of the structural genes of rDEN4 and rDEN4.DELTA.30 with those. . .

AB . . . structural genes of recombinant dengue virus type 4 (rDEN4) have been replaced with those derived from DEN2 or DEN3. Two ***vaccine*** candidates were identified, rDEN2/4.DELTA.30(ME) and rDEN3/4.DELTA.30(ME), which contain the membrane (M) precursor and envelope (E) genes of DEN2 and DEN3,. . . chimeric viruses with the .DELTA.30 mutation appeared to be attenuated as measured by duration and magnitude of viremia. rDEN1/4.DELTA.30(CME) appeared ***over*** - ***attenuated*** since it failed to induce detectable neutralizing antibody and did not confer protection from wild type DEN1 challenge. In contrast,. . .

CT Medical Descriptors:
Aedes . . . recombinant
virus replication
virus strain
wild type
xenograft
*capsid protein: DV, drug development
*capsid protein: DT, drug therapy
*capsid protein: PD, pharmacology
*capsid protein: SC, subcutaneous drug administration
****dengue vaccine: DV, drug development***
****dengue vaccine: DT, drug therapy***
****dengue vaccine: PD, pharmacology***
****dengue vaccine: SC, subcutaneous drug administration***
****live vaccine: DV, drug development***
****live vaccine: DT, drug therapy***
****live vaccine: PD, pharmacology***
****live vaccine: SC, subcutaneous drug administration***
*protein precursor: DV, drug development
*protein precursor: DT, drug therapy
*protein precursor: PD, pharmacology
*protein precursor: SC, subcutaneous drug. . .

L11 ANSWER 26 OF 34 EMBASE

AN 1977018714 EMBASE <<LOGINID::20091118>>

TI Prevention of Marek's disease: a review.

AU Purchase, H.G.

CS Nat. Progr. Staff, ARS, Dept. Agric., Beltsville, Md. 20705, United States .

SO Cancer Research, (1976) Vol. 36, No. 2 II, pp. 696-700.
ISSN: 0008-5472 CODEN: CNREA8

DT Journal; General Review; (Review)

FS 016 Cancer
025 Hematology

LA English

AB Marek's disease (MD) is a highly infectious neoplastic condition of chickens caused by a herpesvirus. The virus is cell associated in tumors and in all organs except in the feather follicle where enveloped infectious virions egress from the body. From this source, infection is spread horizontally by the airborne route to the environment and to other chickens. Vertical transmission from dam to offspring does not occur or at best is very rare. The nonpathogenic herpesvirus of turkeys (HTV) is ubiquitous in turkeys and is probably spread horizontally by the airborne route. When chickens are inoculated with this virus, they do not subsequently develop MD even after infection with virulent Marek's disease virus. The Marek's disease virus, not the HVT, will spread horizontally from dually infected birds. The HVT ***vaccine*** is safe and highly effective in preventing MD under field conditions, and most chickens throughout the world are ***vaccinated*** with this ***vaccine*** . Other ***vaccines*** that have been used but have disadvantages over HVT include the following: the highly pathogenic HPRS 16 strain of Marek's disease virus was attenuated by passage in cell culture. The attenuated virus protects against MD and does not spread, but ' ***over*** ***attenuated*** ' virus does not protect; naturally apathogenic strains virologically, immunologically, and epizootiologically similar to pathogenic humans will protect when administered before infection with the virulent strains; virus preparations that have been chemically treated to inactivate infectivity protect only slightly. When a candidate ***vaccine*** virus for the prevention of herpesvirus induced cancer in himans is developed, the purity of the ***vaccine*** preparations will be easily determined by modern techniques. However, measurements of safety and effectiveness are a significant problem. If, analogous to the MD model, the ***vaccine*** will have to be administered shortly after birth and the incubation period to development of neoplasms is long, then pathogenicity tests in nonhuman primates and other animals may be of limited value. However, biochemical demonstration that the segment of the nucleic acid responsible for oncogenesis is absent from the ***vaccine*** virus may be the major indication that the ***vaccine*** is nononcogenic and therefore safe. Because of the low incidence of neoplasia and long incubation period, the effectiveness of the ***vaccine*** will be difficult to test. The ***vaccine*** possibly will protect against an acute manifestation of viral infection. Future research on MD will be directed to determining the mechanism of protection against disease, i.e., whether immunity is mediated by thymus or bursa dependent systems, and to identifying the protective antigen, i.e., which cell surface or an interior antigen induces the protective immunity. The prevention of MD by ***vaccination*** may become a very fruitful area for model studies on prevention of human cancer by ***vaccination*** .

AB . . . virulent Marek's disease virus. The Marek's disease virus, not the HVT, will spread horizontally from dually infected birds. The HVT ***vaccine*** is safe and highly effective in preventing MD under field conditions, and most chickens throughout the world are ***vaccinated*** with this ***vaccine*** . Other ***vaccines*** that have been used but have disadvantages over HVT include the following: the highly pathogenic HPRS 16 strain of Marek's. . . disease virus was attenuated by passage in cell culture. The attenuated virus protects against MD and does not spread, but ' ***over*** ***attenuated*** ' virus does not protect; naturally apathogenic strains virologically, immunologically, and epizootiologically similar to pathogenic humans will protect when administered before. . . with the virulent strains; virus preparations that have been chemically treated to inactivate infectivity protect only slightly. When a candidate ***vaccine*** virus for the prevention of herpesvirus induced cancer in himans is developed, the purity of the ***vaccine*** preparations will be easily determined by modern techniques. However, measurements of safety and effectiveness are a significant problem. If, analogous to the MD model, the ***vaccine*** will have to be administered shortly after birth and the incubation period to development of neoplasms is long, then pathogenicity. . . of limited value. However, biochemical demonstration that the segment of the nucleic acid responsible for oncogenesis is absent from the ***vaccine*** virus may be the major indication that the ***vaccine*** is nononcogenic and therefore safe. Because of the low incidence of neoplasia and long incubation period, the effectiveness of the ***vaccine*** will be difficult to test. The ***vaccine*** possibly will protect against an acute manifestation of viral infection. Future

research on MD will be directed to determining the. . . the protective antigen, i.e., which cell surface or an interior antigen induces the protective immunity. The prevention of MD by ***vaccination*** may become a very fruitful area for model studies on prevention of human cancer by ***vaccination*** .
CT Medical Descriptors:
*avian lymphomatosis herpetovirus
*cancer prevention
chicken
*herpes virus
microorganism
prevention
****vaccination***
*virus carcinogenesis
****live vaccine***

L11 ANSWER 27 OF 34 LIFESCI COPYRIGHT 2009 CSA on STN
AN 88:56371 LIFESCI <<LOGINID::20091118>>
TI Laboratory markers for ***over*** - ***attenuation*** of mumps ***vaccine*** virus.
AU Boriskin, Yu.S.; Kaptsova, T.I.; Lotte, V.D.; Skvortsova, O.I.; Oervell, C.
CS Inst. Viral Preparations, Moscow 109088, USSR
SO VACCINE., (1988) vol. 6, no. 6, pp. 483-488.
DT Journal
FS V; F; W
LA English
SL English
AB The properties of mumps ***vaccine*** virus (Leningrad-3 strain) gradually changed upon passaging in quail embryo fibroblasts, the substrate normally used for mumps ***vaccine*** production in the USSR. Due to a good inter-correlation, every test (namely, inoculation of guinea-pigs, plaque assay, protein analysis, or immune electron microscopy) is indicative of mumps ***vaccine*** ***over*** - ***attenuation*** and hence might be valuable in seed virus quality control.
TI Laboratory markers for ***over*** - ***attenuation*** of mumps ***vaccine*** virus.
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UT mumps virus; ***vaccines*** ; attenuation; overproduction; laboratories; markers

L11 ANSWER 28 OF 34 MEDLINE on STN
AN 2009630641 IN-PROCESS <<LOGINID::20091118>>
DN PubMed ID: 19674539
TI Development of an experimental inactivated PRRSV ***vaccine*** that induces virus-neutralizing antibodies.
AU Vanhee Merijn; Delputte Peter L; Delrue Iris; Geldhof Marc F; Nauwynck Hans J
CS Laboratory of Virology, Department of Virology, Parasitology and Immunology, Faculty of Veterinary Medicine, Ghent University, Salisburylaan 133, 9820 Merelbeke, Belgium.
SO Veterinary research, (2009 Nov-Dec) Vol. 40, No. 6, pp. 63. Electronic Publication: 2009-08-13.
Journal code: 9309551. ISSN: 0928-4249.
CY France
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS NONMEDLINE; IN-DATA-REVIEW; IN-PROCESS; NONINDEXED; Priority Journals
ED Entered STN: 19 Sep 2009
Last Updated on STN: 19 Sep 2009
AB Porcine reproductive and respiratory syndrome virus (PRRSV) can induce reproductive disorders and is involved in the porcine respiratory disease complex, causing tremendous economic losses to the swine industry.

Inactivated PRRSV ***vaccines*** are preferred ***over*** ***attenuated*** ***vaccines*** because of their safety and flexibility towards emerging virus strains, but the efficacy of current inactivated PRRSV ***vaccines*** is questionable. In this study, experimental inactivated PRRSV ***vaccines*** were developed, based on two formerly optimized inactivation procedures: UV irradiation and treatment with binary ethylenimine (BEI). In a first experiment, it was shown that ***vaccination*** with UV- or BEI-inactivated virus in combination with Incomplete Freund's Adjuvant induced virus-specific antibodies and strongly primed the virus-neutralizing (VN) antibody response. Subsequently, the influence of adjuvants on the immunogenicity of neutralizing epitopes on the inactivated virus was investigated. It was shown that ***vaccination*** with BEI-inactivated virus in combination with a commercial oil-in-water adjuvant induced high titers (3.4 log(2)) of VN antibodies in 6/6 pigs, instead of only priming the neutralizing antibody response. After challenge, neutralizing antibody titers in these ***vaccinated*** animals rose to a mean value of 5.5 log(2), and the duration of the viremia was reduced to an average of 1 week. This study shows that, by the use of an optimized inactivation procedure and a suitable adjuvant, inactivated PRRSV ***vaccines*** can be developed that induce VN antibodies and offer partial protection upon challenge.

TI Development of an experimental inactivated PRRSV ***vaccine*** that induces virus-neutralizing antibodies.

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L11 ANSWER 29 OF 34 MEDLINE on STN
AN 2009340651 MEDLINE <<LOGINID::20091118>>
DN PubMed ID: 19436730
TI Reducing the activity and secretion of microbial antioxidants enhances the immunogenicity of BCG.
AU Sadagopal Shanmugalakshmi; Braunstein Miriam; Hager Cynthia C; Wei Jie; Daniel Alexandria K; Bochan Markian R; Crozier Ian; Smith Nathaniel E; Gates Hiriam O; Barnett Louise; Van Kaer Luc; Price James O; Blackwell Timothy S; Kalams Spyros A; Kernodle Douglas S
CS Department of Medicine, Vanderbilt University Medical Center, Nashville, Tennessee, USA.
NC AI-51561 (United States NIAID NIH HHS)
AI-54540 (United States NIAID NIH HHS)
HL-68518 (United States NHLBI NIH HHS)
P30 AI-54999 (United States NIAID NIH HHS)
T32 AI-007474 (United States NIAID NIH HHS)
U54 AI 057157 (United States NIAID NIH HHS)
SO PloS one, (2009) Vol. 4, No. 5, pp. e5531. Electronic Publication: 2009-05-13.
Journal code: 101285081. E-ISSN: 1932-6203.
Report No.: NLM-PMC2677452.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, N.I.H., EXTRAMURAL)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LA English
FS Priority Journals
EM 200908
ED Entered STN: 14 May 2009
Last Updated on STN: 8 Aug 2009
Entered Medline: 7 Aug 2009
AB BACKGROUND: In early clinical studies, the live tuberculosis ***vaccine*** Mycobacterium bovis BCG exhibited 80% protective efficacy against pulmonary tuberculosis (TB). Although BCG still exhibits reliable protection against TB meningitis and miliary TB in early childhood it has become less reliable in protecting against pulmonary TB. During decades of in vitro cultivation BCG not only lost some genes due to deletions of regions of the chromosome but also underwent gene duplication and other mutations resulting in increased antioxidant production. METHODOLOGY/PRINCIPAL FINDINGS: To determine whether microbial antioxidants influence ***vaccine*** immunogenicity, we eliminated duplicated alleles encoding the oxidative stress sigma factor SigH in BCG Tice and reduced the activity and secretion of iron co-factored superoxide dismutase. We then used assays of gene expression and flow cytometry with intracellular cytokine staining to compare BCG-specific immune responses in mice after ***vaccination*** with BCG Tice or the modified BCG ***vaccine*** . Compared to BCG, the modified ***vaccine*** induced greater IL-12p40, RANTES, and IL-21 mRNA in the spleens of mice at three days post-immunization, more cytokine-producing CD8+ lymphocytes at the peak of the primary immune response, and more IL-2-producing CD4+ lymphocytes during the memory phase. The modified ***vaccine*** also induced stronger secondary CD4+ lymphocyte responses and greater clearance of challenge bacilli. CONCLUSIONS/SIGNIFICANCE: We conclude that antioxidants produced by BCG suppress host immune responses. These findings challenge the hypothesis that the failure of extensively cultivated BCG ***vaccines*** to prevent pulmonary tuberculosis is due to ***over*** - ***attenuation*** and suggest instead a new model in which BCG evolved to produce more immunity-suppressing antioxidants. By targeting these antioxidants it may be possible to restore BCG's ability to protect against pulmonary TB.
AB BACKGROUND: In early clinical studies, the live tuberculosis ***vaccine*** Mycobacterium bovis BCG exhibited 80% protective efficacy against pulmonary tuberculosis (TB). Although BCG still exhibits reliable protection against TB meningitis. . . also underwent gene duplication and other mutations resulting in increased antioxidant production. METHODOLOGY/PRINCIPAL FINDINGS: To determine whether microbial antioxidants influence ***vaccine*** immunogenicity, we eliminated duplicated alleles encoding the oxidative stress sigma factor SigH in BCG Tice and reduced the activity and. . . used assays of gene expression and flow cytometry with intracellular cytokine staining to compare BCG-specific immune responses in mice after ***vaccination*** with BCG Tice or the modified BCG ***vaccine*** . Compared to BCG, the modified ***vaccine*** induced greater IL-12p40, RANTES, and IL-21 mRNA in the spleens of mice at three days post-immunization, more cytokine-producing CD8+ lymphocytes at the peak of the primary immune response, and more IL-2-producing CD4+ lymphocytes during the memory phase. The modified ***vaccine*** also induced stronger secondary CD4+ lymphocyte responses and greater clearance of challenge bacilli. CONCLUSIONS/SIGNIFICANCE: We conclude that antioxidants produced by BCG suppress host immune responses. These findings challenge the hypothesis that the failure of extensively cultivated BCG ***vaccines*** to prevent pulmonary tuberculosis is due to ***over*** - ***attenuation*** and suggest instead a new model in which BCG evolved to produce more immunity-suppressing antioxidants. By targeting these antioxidants it. . .
CT Adjuvants, Immunologic: AD, administration & dosage
*Adjuvants, Immunologic: PD, pharmacology
Animals
*Antioxidants: ME, metabolism
*** BCG Vaccine: GE, genetics***
****BCG Vaccine: IM, immunology***
*** BCG Vaccine: PD, pharmacology***
CD4-Positive T-Lymphocytes: IM, immunology
Chemokine CCL5: GE, genetics
Chemokine CCL5: ME, metabolism

Immunization, Secondary
Interleukin-12 Subunit. . .
CN 0 (Adjuvants, Immunologic); 0 (Antioxidants); 0 (BCG ***Vaccine***); 0 (Ccl5 protein, mouse); 0 (Chemokine CCL5); 0 (Interleukin-12 Subunit p40); 0 (Interleukin-2); 0 (Interleukins); 0 (RNA, Messenger); 0 (interleukin-21)

L11 ANSWER 30 OF 34 MEDLINE on STN
AN 2007463684 MEDLINE <<LOGINID::20091118>>
DN PubMed ID: 17605811
TI Attenuation and efficacy of human parainfluenza virus type 1 (HPIV1) ***vaccine*** candidates containing stabilized mutations in the P/C and L genes.
AU Bartlett Emmalene J; Castano Adam; Surman Sonja R; Collins Peter L; Skiadopoulos Mario H; Murphy Brian R
CS Laboratory of Infectious Diseases, Respiratory Viruses Section, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Department of Health and Human Services, Bethesda, MD, USA.. ebartlett@niaid.nih.gov
SO Virology journal, (2007) Vol. 4, pp. 67. Electronic Publication: 2007-07-02.
Journal code: 101231645. E-ISSN: 1743-422X.
Report No.: NLM-PMC1939843.
CY England: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, N.I.H., INTRAMURAL)
LA English
FS Priority Journals
EM 200709
ED Entered STN: 9 Aug 2007
Last Updated on STN: 5 Sep 2007
Entered Medline: 4 Sep 2007
AB BACKGROUND: Two recombinant, live attenuated human parainfluenza virus type 1 (rHPIV1) mutant viruses have been developed, using a reverse genetics system, for evaluation as potential intranasal ***vaccine*** candidates. These rHPIV1 ***vaccine*** candidates have two non-temperature sensitive (non-ts) attenuating (att) mutations primarily in the P/C gene, namely CR84GHNT553A (two point mutations used together as a set) and CDelta170 (a short deletion mutation), and two ts att mutations in the L gene, namely LY942A (a point mutation), and LDelta1710-11 (a short deletion), the last of which has not been previously described. The latter three mutations were specifically designed for increased genetic and phenotypic stability. These mutations were evaluated on the HPIV1 backbone, both individually and in combination, for attenuation, immunogenicity, and protective efficacy in African green monkeys (AGMs). RESULTS: The rHPIV1 mutant bearing the novel LDelta1710-11 mutation was highly ts and attenuated in AGMs and was immunogenic and efficacious against HPIV1 wt challenge. The rHPIV1-CR84G/Delta170HNT553ALY942A and rHPIV1-CR84G/Delta170HNT553ALDelta1710-11 ***vaccine*** candidates were highly ts, with shut-off temperatures of 38 degrees C and 35 degrees C, respectively, and were highly attenuated in AGMs. Immunization with rHPIV1-CR84G/Delta170HNT553ALY942A protected against HPIV1 wt challenge in both the upper and lower respiratory tracts. In contrast, rHPIV1-CR84G/Delta170HNT553ALDelta1710-11 was not protective in AGMs due to ***over*** - ***attenuation*** , but it is expected to replicate more efficiently and be more immunogenic in the natural human host. CONCLUSION: The rHPIV1-CR84G/Delta170HNT553ALY942A and rHPIV1-CR84G/Delta170HNT553ALDelta1710-11 ***vaccine*** candidates are clearly highly attenuated in AGMs and clinical trials are planned to address safety and immunogenicity in humans.
TI Attenuation and efficacy of human parainfluenza virus type 1 (HPIV1) ***vaccine*** candidates containing stabilized mutations in the P/C and L genes.
AB . . . parainfluenza virus type 1 (rHPIV1) mutant viruses have been developed, using a reverse genetics system, for evaluation as potential intranasal ***vaccine*** candidates. These rHPIV1 ***vaccine*** candidates have two non-temperature sensitive (non-ts) attenuating (att) mutations primarily in the P/C gene, namely CR84GHNT553A (two point mutations used. . . was highly ts and attenuated in AGMs and was immunogenic and efficacious against HPIV1 wt challenge. The rHPIV1-CR84G/Delta170HNT553ALY942A and

rHPIV1-CR84G/Delta170HNT553ALDelta1710-11 ***vaccine*** candidates were highly ts, with shut-off temperatures of 38 degrees C and 35 degrees C, respectively, and were highly attenuated. . . wt challenge in both the upper and lower respiratory tracts. In contrast, rHPIV1-CR84G/Delta170HNT553ALDelta1710-11 was not protective in AGMs due to ***over*** - ***attenuation*** , but it is expected to replicate more efficiently and be more immunogenic in the natural human host. CONCLUSION: The rHPIV1-CR84G/Delta170HNT553ALY942A and rHPIV1-CR84G/Delta170HNT553ALDelta1710-11 ***vaccine*** candidates are clearly highly attenuated in AGMs and clinical trials are planned to address safety and immunogenicity in humans.

CT Administration, Intranasal
Animals
Attachment Sites, Microbiological: GE, genetics
Base Sequence
Cell Line
Cercopithecus aethiops
Humans
Molecular Sequence Data
Mutation
*** Parainfluenza Vaccines: AD, administration & dosage***
*** Parainfluenza Vaccines: GE, genetics***
****Parainfluenza Vaccines: IM, immunology***
Parainfluenza Virus 1, Human: GE, genetics
*Parainfluenza Virus 1, Human: IM, immunology
Parainfluenza Virus 1, Human: PH,. . . genetics
Phosphoproteins: IM, immunology
Respirovirus Infections: IM, immunology
Respirovirus Infections: PC, prevention & control
Respirovirus Infections: VI, virology
Treatment Outcome
*** Vaccines, Attenuated: AD, administration & dosage***
*** Vaccines, Attenuated: GE, genetics***
*** Vaccines, Attenuated: IM, immunology***
*** Vaccines, DNA: AD, administration & dosage***
*** Vaccines, DNA: GE, genetics***
****Vaccines, DNA: IM, immunology***
Vero Cells
*Viral Proteins: GE, genetics
Viral Proteins: IM, immunology
Virus Replication

CN 0 (Parainfluenza ***Vaccines***); 0 (Phosphoproteins); 0 (***Vaccines*** , Attenuated); 0 (***Vaccines*** , DNA); 0 (Viral Proteins)

L11 ANSWER 31 OF 34 MEDLINE on STN
AN 2007146077 MEDLINE <<LOGINID::20091118>>
DN PubMed ID: 17328799
TI ***Vaccine*** candidates for dengue virus type 1 (DEN1) generated by replacement of the structural genes of rDEN4 and rDEN4Delta30 with those of DEN1.
AU Blaney Joseph E Jr; Sathe Neeraj S; Hanson Christopher T; Firestone Cai Yen; Murphy Brian R; Whitehead Stephen S
CS Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD 20892, USA.. jblaney@niaid.nih.gov
SO Virology journal, (2007) Vol. 4, pp. 23. Electronic Publication: 2007-02-28.
Journal code: 101231645. E-ISSN: 1743-422X.
Report No.: NLM-PMC1819370.
CY England: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LA English
FS Priority Journals
EM 200703
ED Entered STN: 10 Mar 2007
Last Updated on STN: 24 Mar 2007
Entered Medline: 22 Mar 2007
AB BACKGROUND: Antigenic chimeric viruses have previously been generated in which the structural genes of recombinant dengue virus type 4 (rDEN4) have

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     been replaced with those derived from DEN2 or DEN3.  Two   ***vaccine***
     candidates were identified, rDEN2/4Delta30(ME) and rDEN3/4Delta30(ME),
     which contain the membrane (M) precursor and envelope (E) genes of DEN2
     and DEN3, respectively, and a 30 nucleotide deletion (Delta30) in the 3'
     untranslated region of the DEN4 backbone.  Based on the promising
     preclinical phenotypes of these viruses and the safety and immunogenicity
     of rDEN2/4Delta30(ME) in humans, we now describe the generation of a panel
     of four antigenic chimeric DEN4 viruses using either the capsid (C), M,
     and E (CME) or ME structural genes of DEN1 Puerto Rico/94 strain.
     RESULTS: Four antigenic chimeric viruses were generated and found to
     replicate efficiently in Vero cells: rDEN1/4(CME), rDEN1/4Delta30(CME),
     rDEN1/4(ME), and rDEN1/4Delta30(ME).  With the exception of rDEN1/4(ME),
     each chimeric virus was significantly attenuated in a SCID-HuH-7 mouse
     xenograft model with a 25-fold or greater reduction in replication
     compared to wild type DEN1.  In rhesus monkeys, only chimeric viruses with
     the Delta30 mutation appeared to be attenuated as measured by duration and
     magnitude of viremia. rDEN1/4Delta30(CME) appeared   ***over***  -
       ***attenuated***   since it failed to induce detectable neutralizing
     antibody and did not confer protection from wild type DEN1 challenge.  In
     contrast, rDEN1/4Delta30(ME) induced 66% seroconversion and protection
     from DEN1 challenge.  Presence of the Delta30 mutation conferred a
     significant restriction in mosquito infectivity upon rDEN1/4Delta30(ME)
     which was shown to be non-infectious for Aedes aegypti fed an infectious
     bloodmeal.  CONCLUSION: The attenuation phenotype in SCID-HuH-7 mice,
     rhesus monkeys, and mosquitoes and the protective immunity observed in
     rhesus monkeys suggest that rDEN1/4Delta30(ME) should be considered for
     evaluation in a clinical trial.
TI     ***Vaccine***   candidates for dengue virus type 1 (DEN1) generated by
     replacement of the structural genes of rDEN4 and rDEN4Delta30 with those.
     .  .
AB   .  .  .  structural genes of recombinant dengue virus type 4 (rDEN4) have
     been replaced with those derived from DEN2 or DEN3.  Two   ***vaccine***
     candidates were identified, rDEN2/4Delta30(ME) and rDEN3/4Delta30(ME),
     which contain the membrane (M) precursor and envelope (E) genes of DEN2
     and DEN3,.  .  .  chimeric viruses with the Delta30 mutation appeared to
     be attenuated as measured by duration and magnitude of viremia.
     rDEN1/4Delta30(CME) appeared   ***over***  -  ***attenuated***   since it
     failed to induce detectable neutralizing antibody and did not confer
     protection from wild type DEN1 challenge.  In contrast,.  .  .
CT    .  .  .  VI, virology
      Animals
      Antibodies, Viral: BL, blood
      Cell Line
      Cell Line, Tumor
      Dengue: IM, immunology
     *Dengue: PC, prevention & control
         ****Dengue Vaccines: GE, genetics***
         ****Dengue Vaccines: IM, immunology***
     *Dengue Virus: GE, genetics
     *Dengue Virus: IM, immunology
      Dengue Virus: PH, physiology
      Disease Models, Animal
      Humans
      Macaca mulatta
      Mice
      Mice, SCID
      Neutralization Tests
      Recombination, Genetic
      Survival Analysis
         *** Vaccines, Attenuated: GE, genetics***
         *** Vaccines, Attenuated: IM, immunology***
         *** Vaccines, Synthetic: IM, immunology***
     *Viral Structural Proteins: GE, genetics
     *Viral Structural Proteins: IM, immunology
      Viremia
      Virus Replication
CN   0 (Antibodies, Viral); 0 (Dengue   ***Vaccines***  ); 0 (  ***Vaccines***
     , Attenuated); 0 (  ***Vaccines***  , Synthetic); 0 (Viral Structural
     Proteins)

L11  ANSWER 32 OF 34     MEDLINE on STN
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AN 1976258237 MEDLINE <<LOGINID::20091118>>
DN PubMed ID: 782966
TI The use of live attenuated influenza ***vaccine*** ts-1(E) in man.
AU Gwaltney J M Jr
SO Developments in biological standardization, (1976) Vol. 33, pp. 178-83.
Journal code: 0427140. ISSN: 0301-5149.
CY Switzerland
DT (CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 197611
ED Entered STN: 13 Mar 1990
Last Updated on STN: 3 Feb 1997
Entered Medline: 1 Nov 1976
AB Live temperature-sensitive influenza virus ***vaccines*** were tested in two volunteer experiments. The ***vaccine*** virus was originally derived from a temperature-sensitive mutant of influenza A/Great Lakes/1965 (H2N2) produced by chemical mutagenesis with 5-fluorouracil. The ts lesions of this strain were subsequently transferred (HI) antibody. Only 9 men (13%) were infected, presumably as a result of ***over*** - ***attenuation*** of the virus and/or insufficient titer of the inoculum. In the second experiment (1974), 20 young adults were given 0.5 ml per nostril of ***vaccine*** containing a recombinant of influenza A/Udorn/307/72 clone 24 (10(5.5) TCID50/ml) with an in vitro shutoff temperature of 38 degree C. Virus was shed by seven volunteers (maximum titer, 10(2.5)TCID50/ml). None of 21 isolates contained revertant wild type virus. Serum HI and antieuraminidase (NI) and nasal wash neutralizing antibody responses occurred in 11 (55%), 7 (35%), and 8 (40%) volunteers, respectively. Post- ***vaccination*** serum HI and NI and nasal neutralizing antibody geometric mean titers were 3.0, 9.4, and 1.7 lob2, respectively. Seven volunteers judged they had colds (symptom scores 4-32). Rhinitis and mild pharyngeal discomfort were the only consistent complaints and fever was absent. The findings in the latter trial will be compared with results of volunteer experiments with Udorn/72 ts-1-(E) in other laboratories and to studies with standard inactivated influenza ***vaccines*** given parenterally.
TI The use of live attenuated influenza ***vaccine*** ts-1(E) in man.
AB Live temperature-sensitive influenza virus ***vaccines*** were tested in two volunteer experiments. The ***vaccine*** virus was originally derived from a temperature-sensitive mutant of influenza A/Great Lakes/1965 (H2N2) produced by chemical mutagenesis with 5-fluorouracil. The. . . lesions of this strain were subsequently transferred (HI) antibody. Only 9 men (13%) were infected, presumably as a result of ***over*** - ***attenuation*** of the virus and/or insufficient titer of the inoculum. In the second experiment (1974), 20 young adults were given 0.5 ml per nostril of ***vaccine*** containing a recombinant of influenza A/Udorn/307/72 clone 24 (10(5.5) TCID50/ml) with an in vitro shutoff temperature of 38 degree C.. . . and antieuraminidase (NI) and nasal wash neutralizing antibody responses occurred in 11 (55%), 7 (35%), and 8 (40%) volunteers, respectively. Post- ***vaccination*** serum HI and NI and nasal neutralizing antibody geometric mean titers were 3.0, 9.4, and 1.7 lob2, respectively. Seven volunteers. . . be compared with results of volunteer experiments with Udorn/72 ts-1-(E) in other laboratories and to studies with standard inactivated influenza ***vaccines*** given parenterally.
CT . . .
Intranasal
Adult
Antibodies, Viral: AN, analysis
Child
Clinical Trials as Topic
Hemagglutination Inhibition Tests
Humans
Influenza A virus: IM, immunology
****Influenza Vaccines: AD, administration & dosage***
*** Influenza Vaccines: AE, adverse effects***
*** Influenza Vaccines: TU, therapeutic use***
Influenza, Human: PC, prevention & control
Neuraminidase: IM, immunology
****Vaccines, Attenuated: AD, administration & dosage***

*** Vaccines, Attenuated: AE, adverse effects***
CN 0 (Antibodies, Viral); 0 (Influenza ***Vaccines***); 0 (***Vaccines*** , Attenuated); EC 3.2.1.18 (Neuraminidase)

L11 ANSWER 33 OF 34 SCISEARCH COPYRIGHT (c) 2009 The Thomson Corporation on STN
AN 2007:910306 SCISEARCH <<LOGINID::20091118>>
GA The Genuine Article (R) Number: 198SN
TI Attenuation and efficacy of human parainfluenza virus type I (HPIVI) ***vaccine*** candidates containing stabilized mutations in the P/C and L genes
AU Bartlett, Emmalene J. (Reprint)
CS NIAID, Lab Infectious Dis, Resp Viruses Sect, NIH, Dept Hlth & Human Serv, Bethesda, MD 20892 USA (Reprint)
AU Castano, Adam; Surman, Sonja R.; Collins, Peter L.; Skiadopoulos, Mario H.; Murphy, Brian R.
CS E-mail: ebartlett@niaid.nih.gov; adam.castano@gmail.com; SBarbagallo@niaid.nih.gov; PCOLLINS@niaid.nih.gov; mskiadopoulos@niaid.nih.gov; bmurphy@niaid.nih.gov
CYA USA
SO VIROLOGY JOURNAL, (2 JUL 2007) Vol. 4, arn. 67.
ISSN: 1743-422X.
PB BIOMED CENTRAL LTD, MIDDLESEX HOUSE, 34-42 CLEVELAND ST, LONDON W1T 4LB, ENGLAND.
DT Article; Journal
LA English
REC Reference Count: 32
ED Entered STN: 20 Sep 2007
Last Updated on STN: 20 Sep 2007
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS
AB Background: Two recombinant, live attenuated human parainfluenza virus type I (rHPIVI) mutant viruses have been developed, using a reverse genetics system, for evaluation as potential intranasal ***vaccine*** candidates. These rHPIVI ***vaccine*** candidates have two non-temperature sensitive (non-ts) attenuating (att) mutations primarily in the P/C gene, namely (CHNT553A)-H-R84G (two point mutations used together as a set) and C-Delta 170 (a short deletion mutation), and two ts att mutations in the L gene, namely L-Y942A (a point mutation), and L Delta 1710-11 (a short deletion), the last of which has not been previously described. The latter three mutations were specifically designed for increased genetic and phenotypic stability. These mutations were evaluated on the HPIVI backbone, both individually and in combination, for attenuation, immunogenicity, and protective efficacy in African green monkeys (AGMs).

Results: The rHPIVI mutant bearing the novel L Delta 1710-11 mutation was highly ts and attenuated in AGMs and was immunogenic and efficacious against HPIVI wt challenge. The rHPIVI-(CHNLY942A)-H-R84G/Delta 170-L-T553A and rHPIVI-(CHNL Delta 1710-11)-H-R84G/Delta 170-L-T553A ***vaccine*** candidates were highly ts, with shut-off temperatures of 38 C and 35 C, respectively, and were highly attenuated in AGMs. Immunization with rHPIVI-(CHNLY942A)-H-R84G/Delta 170-L-T553A protected against HPIVI wt challenge in both the upper and lower respiratory tracts. In contrast, rHPIVI-(CHNL Delta 1710-11)-H-R84G/Delta 170-L-T553A was not protective in AGMs due to ***over*** - ***attenuation*** , but it is expected to replicate more efficiently and be more immunogenic in the natural human host.

Conclusion: The rHPIVI-(CHNLY942A)-H-R84G/Delta 170-L-T553A and rHPIVI-C-R84G/Delta 170HN(T553A)L(Delta 1710-11) ***vaccine*** candidates are clearly highly attenuated in AGMs and clinical trials are planned to address safety and immunogenicity in humans.
TI Attenuation and efficacy of human parainfluenza virus type I (HPIVI) ***vaccine*** candidates containing stabilized mutations in the P/C and L genes
AB . . . parainfluenza virus type I (rHPIVI) mutant viruses have been developed, using a reverse genetics system, for evaluation as potential intranasal ***vaccine*** candidates. These rHPIVI ***vaccine*** candidates have two non-temperature sensitive (non-ts) attenuating (att) mutations primarily in the P/C gene, namely (CHNT553A)-H-R84G (two point mutations used. . . attenuated in AGMs and was immunogenic and efficacious against HPIVI wt challenge. The rHPIVI-(CHNLY942A)-H-R84G/Delta 170-L-T553A and rHPIVI-(CHNL Delta

1710-11)-H-R84G/Delta 170-L-T553A ***vaccine*** candidates were highly ts, with shut-off temperatures of 38 C and 35 C, respectively, and were highly attenuated in AGMs.. . . both the upper and lower respiratory tracts. In contrast, rHPIVI-(CHNL Delta 1710-11)-H-R84G/Delta 170-L-T553A was not protective in AGMs due to ***over*** - ***attenuation*** , but it is expected to replicate more efficiently and be more immunogenic in the natural human host.

Conclusion: The rHPIVI-(CHNLY942A)-H-R84G/Delta 170-L-T553A and rHPIVI-C-R84G/Delta 170HN(T553A)L(Delta 1710-11) ***vaccine*** candidates are clearly highly attenuated in AGMs and clinical trials are planned to address safety and immunogenicity in humans.

L11 ANSWER 34 OF 34 SCISEARCH COPYRIGHT (c) 2009 The Thomson Corporation on STN
AN 1992:596667 SCISEARCH <<LOGINID::20091118>>
GA The Genuine Article (R) Number: JR538
TI GENETIC-EVIDENCE FOR VARIANT SELECTION IN THE COURSE OF DILUTE PASSAGING OF MUMPS ***VACCINE*** VIRUS
AU BORISKIN Y S (Reprint); YAMADA A; KAPTSOVA T I; SKVORTSOVA O I; SINITSYNA O A; TAKEUCHI K; TANABAYASHI K; SUGIURA A
CS NATL INST HLTH, DEPT MEASLES VIRUS, TOKYO 141, JAPAN; VACCINE PROD DEPT, MOSCOW, USSR
CYA JAPAN; USSR
SO RESEARCH IN VIROLOGY, (JUL-AUG 1992) Vol. 143, No. 4, pp. 279-283. ISSN: 0923-2516.
PB EDITIONS SCIENTIFIQUES ELSEVIER, 141 RUE JAVEL, 75747 PARIS CEDEX 15, FRANCE.
DT Article; Journal
FS LIFE
LA English
REC Reference Count: 12
ED Entered STN: 1994
Last Updated on STN: 1994
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS
AB Mumps ***vaccine*** viruses, Leningrad-3 (L-3) strain, harvested at the 8th (8P) and 38th (38P) passage levels, were compared by nucleotide sequencing of the fusion (F) and the phosphoprotein (P) genes, and for replication efficiency in cell culture. Sequencing revealed only one clear base substitution throughout the entire F gene, and no substitutions in the variable 183-nucleotide-long region of the P gene. However, the 8P virus, unlike the 38P variant, contained multiple "ambiguous" nucleotide regions, i.e., additional bases positioned at the level of the principal ones. The 38P variant replicated faster and appeared more homogeneous by its plaque character compared to the 8P virus. The results indicate that the 8P progenitor virus consisted of more than one viral variant and that one of these was selected on repeated passage due to its higher replication efficiency.
TI GENETIC-EVIDENCE FOR VARIANT SELECTION IN THE COURSE OF DILUTE PASSAGING OF MUMPS ***VACCINE*** VIRUS
AB Mumps ***vaccine*** viruses, Leningrad-3 (L-3) strain, harvested at the 8th (8P) and 38th (38P) passage levels, were compared by nucleotide sequencing of. . .
ST Author Keywords: MUMPS, ***VACCINE*** VIRUS, SEQUENCING; ***OVER*** ***ATTENUATION*** , VARIANT SELECTION